THE JOURNAL
of the
South Carolina Medical Association

VOLUME XXXVI October, 1940 NUMBER 10

Chronic Tetany. Is This Condition Common In Adults?

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For brevity, in your program, the title of this paper is listed as chronic tetany, but here I want to define the subject a little more closely. The remarks to be made will be largely confined to a syndrome which is held to be a form of tetany, which is mild to moderately severe, and which is unrelated to thyroid operation and which occurs outside of infancy. As Sevringhaus (1) has pointed out, this syndrome is often overlooked and the treatment is not usually described in the standard texts. I feel it is a matter of considerable clinical importance because a sizable number of nervous patients can be better understood if this syndrome is kept in mind.

What do we mean by chronic tetany? In this discussion we have in mind a condition of generalized neuromuscular excitability and instability, due probably in all cases to a reduction of ionized calcium in the blood and tissue fluids or at least to a disturbance in calcium metabolism. In most instances, I believe this basic upset to arise from an endocrine cause, namely, spontaneous parathyroid hypofunction just as thyroid insufficiency can develop spontaneously. However, there are other causative mechanisms and again we quote Sevringhaus from a later source (2), "The diagnosis of chronic hypoparathyroid tetany continues to be missed frequently enough to indicate the need for urging attention to this entity. The etiology of rare idiopathic cases is a puzzle; post-thyroidectomy cases are commoner. Rare cases after thyroid radiation have been reported by French authors. There are numerous cases of transient tetany occurring especially in patients with disturbances of hypothalamic nuclei or of pituitary hypofunction with genital disturbances. These latter usually have obvious disturbances of ventilation as the mechanism of inducing tetany. Such cases need not be considered as parathyroid dysfunction and are to be treated symptomatically or by rebreathing." In this connection one may see a remarkable connection between the obscure quality of a psychoneurotic disturbance and a dramatic and very real biochemical disturbance. These patients, usually women, for some reason of inner nervous tension, force themselves into over-ventilation. By so doing, they blow off an excess of carbon dioxide from the blood, their blood shifts to the alkaline side, calcium ionization is reduced, and a typical attack of tetany occurs. This explanation may be an over-simplification but in any event such an attack is impressive to watch.

Symptomatology: In the 1938 Year Book of Neurology, Psychiatry, and Endocrinology, appears an abstracted description of the symptomatic features of tetany, so concise, and yet, so comprehensive, as to deserve complete repetition here. Hunter (3) of London states, "In tetany, the muscles tend to go into a condition

Read before the South Carolina Medical Association, Charleston, S. C., May 2, 1940.

of painful, prolonged spasm, e. g., the muscles of the forearms and hands, the larynx, and sometimes the legs and feet. Paraesthesiae of the forearms and hands, often ulnar, is the most common symptom. A similar tingling sensation may be felt in the legs. Girdle sensations, feeling of weight on the chest, and general numbness may be noted. Central nervous system effects may include drowsiness, twitchings, convulsions, and coma. Between attacks, the patient may be nervous, hysterical, or depressed. Severity does not vary in proportion to the serum calcium content, although it is generally below seven milligrams per cent. The recognition of tetany during an attack is easy. Carpal spasm, tingling of the arms and sometimes of the legs, and hoarseness or stridor are characteristic. Diagnoses can be confirmed by (1) The Chvostek sign—twitching of the upper lip or even of one-half of the face, elicited by tapping the facial nerve just in front of and below the ear (occasionally demonstrable in normals) or (2) The Trousseau sign—typical carpal spasm brought on by pressure on the upper arm, as by a sphygmomanometer cuff. Lesions of ectodermal tissues—cataract, ridging of the nails, loss of hair, and defective tooth enamel—may arise in long standing tetany."

Trousseau's sign is rarely obtained in the mild to borderline case, largely the type we are thinking about here, but the carpo-pedal spasm of spontaneous or upper arm pressure origin, is worthy of more detailed description. This spasm results in a characteristic configuration of the hand in which the wrist is flexed, the phalanges are closely adducted, are slightly flexed are the metacarpo-phalangeal joint, and are hyperextended beyond this point. A similar configuration may occur in the foot with an associated marked plantar flexion of the foot.

There are a few symptoms worthy of stress that Hunter did not mention in his splendid summary. In my experience a story of otherwise unexplained cold chills is of much diagnostic importance. In some of the children extreme motor restlessness may cause an erroneous diagnosis of Chorea to be made, a mistake I have made. And lastly these people in a considerable proportion may show the classical complaints, best inferred by the term, irritable colon. The story is usually one of too frequent bowel movements following even slight psychic and emotional stimuli, gurgling, transient gas and cramping pains, borborygmi and in the case of Mr. H., a superimposed, well developed psychoneurosis, because these colonic symptoms invariably obtruded themselves on his consciousness when he went out on a date.

Diagnosis: It is my candid opinion that the diagnosis must rest on the above symptoms and signs for in the milder case the necessary laboratory studies are neither very practicable nor very helpful. If a really low serum calcium of seven milligrams per cent or lower is obtained in the laboratory, well and good, but in most cases a low normal will be obtained. I do not believe this excludes a diagnosis of spontaneous tetany for the calcium determination has a wide margin of experimental error and at best is not entirely satisfactory. The biochemistry of calcium is so complicated with it varied factors of diffusible, non-diffusible calcium ratio, ionized and non-ionized condition, its binding in one form with the inorganic phosphate of the serum, and another with the serum protein, that I feel the diagnosis is not excluded by the laboratory unless the blood calcium is a high normal in the face of a normal serum phosphate.

I wish to repeat that though the Chvostek sign has not been proven exclusively caused by a calcium ion deficiency, it is the most reliable and constant sign of it, and any person showing a frankly positive Chvostek should be kept under suspicion as having tetany, even if borderline. This sign is not a reflex but is an exaggerated response to stimulation of the facial nerve by the mechanical blow.

Treatment: The rationale of treatment would of course depend on the basic concept of the cause of the disease. If it is due to insufficient activity of the parathyroid gland, then the appropriate treatment would consist of efforts either to stimulate the gland or to apply specific substitution therapy. I do not know how to stimulate the parathyroids directly and have seen no mention of efforts to do so in the literature I have studied. Experience with parathyroid hormone in prolonged therapy

have been generally unsatisfactory for after a time patients become refractory to the extracts now available. Injection of a potent parathyroid preparation is effective at first and it would seem that at present this material is useful mainly in the acute emergency phase of tetany.

The next apparent agent of choice is dihydrotachysterol or AT-10. This substance which is closely related to viosterol was developed in an effort to produce a drug with a maximum effect in raising the blood calcium without particular antirachitic properties. The literature on this material indicates that such is the case for it is generally favorable but it is so potent in raising the blood calcium that to safeguard its use serum calcium determinations have generally been held necessary and for this reason as well as its cost, I have not had experience with it.

However, Fuller Albright (4) states that the dangers of hypercalcemia with tachysterol can be avoided by a very simple test that can even be carried out by the patient at home. This test is based on the fact that the renal threshold for calcium is seven and a half to nine milligrams per cent. By mixing an equal part of urine with a carefully buffered oxalate solution to be described, the absence or relative amount of calcium in the urine is determined and the dosage of tachysterol adjusted accordingly. If no cloud occurs on mixing the urine and reagent no calcium is present and no danger of hypercalcemia exists; if a fine white cloud occurs, the blood calcium is probably within normal limits; if the urine and reagent mixture becomes immediately milky, there is danger of hypercalcemia and the dosage should be reduced. The reagent in question consists of two and a half grams each, of ammonium oxalate and oxalic acid, and five cubic centimeters of glacial acetic acid dissolved in distilled water and made up to a volume of one hundred and fifty cubic centimeters. The patient can make his own tests at home after a little supervision very much like the diabetic testing the urine for sugar, and can adjust the dose of tachysterol accordingly. By this method, the usual dose of tachysterol is about three cubic centimeters a day until calcium appears in the urine; dosage is then dropped to maintenance level of about one cubic centimeter, three to five times weekly.

In considering other means of raising the serum calcium the method that obviously suggests itself is the use of calcium preparations both orally and parenterally. The usual salts of calcium in tablet form and dissolved in milk are unsatisfactory and let me say here, that there is evidence that the presence of phosphate in the calcium medication may actually aggravate rather than ameliorate the patient's condition and hence it is unwise to use the calcium-phosphorus preparations so often used in pregnant women and infants. Sloan Wilson (5) reporting a case of post-thyroidectomy tetany found that calcium lactate dissolved in water given simultaneously with purified vitamine D in propylene glycol was almost as prompt in its effect as calcium injections and he recommends this method of administration. Calcium chloride is the most soluble and effective of the calcium salts but most clinicians have feared to use it orally because of its astringent effect but Sevringhaus (6) states, "I have used it (calcium chloride) in tetany for several years with conspicuous success. The vehicle is elixir of glycyrrhiza and the salt is dispensed in a twenty-five per cent solution, the dose being one to two teaspoonfuls, two to four times daily, well before meals and at bedtime."

For immediate effect however, calcium parenterally is the therapy of choice, and I prefer the intravenous route. There are several forms in which it can be given but the gluconate has been uniformly satisfactory and safe. The material is obtained in the form of a ten per cent solution in a ten cubic centimeter ampoule and the intravenous injections should be given very slowly allowing about a half minute for each cubic centimeter injected. A dose of three to five cubic centimeters is probably wise for the first injection working up to the whole ampoule on subsequent injections. There is invariably a generalized feeling of warmth which appears promptly after the injection is started which I do not think a contraindication to the treatment. If one gives one half cubic centimeter of the solution rather quickly into one of the arm

veins held at the level of the heart and then asks the patient to inform him immediately on feeling the warmth under the tongue, a valuable observation can be made by measuring carefully the time interval between these events. This interval is nearly constant and is normally twelve to fifteen seconds; a figure of this duration or longer rather effectively rules out hyperthyroidism which is an important consideration in these nervous people.

As to reactions, Hunter states, (3), "Injection must be stopped when the patient feels flushed or his tongue is hot or on complaint of constriction in the chest or sternal pain." With the latter part of this admonition one is inclined to agree but this feeling of warmth is so universal, that it is hard to consider it a reaction. With respect to contraindications there have been references in the literature to fatal outcomes following the injection of calcium into the digitalized patient and although the evidence is inconclusive, this caution should be heeded. It will not be very likely that a patient with tetany will be receiving digitalis. Due to certain other antagonisms and synergisms between calcium and other important electrolytes such as magnesium, sodium, and potassium, it is probably safest not to give calcium parenterally, when one or more of these others has been similarly given. Otherwise the rules concerning intravenous injections in general apply here and the danger is probably not as great as with other agents commonly put into the vein in every day medical practice.

As to the duration of the calcium injection treatment and number of doses, I do not believe any hard and fast rule can be made, but in the borderline to moderately severe cases, a satisfactory clinical response can usually be obtained by weekly or biweekly injections and six or eight can be given in a series. After a short rest period they can be started again if necessary.

Generally improvement is manifest after the first few injections and oral calcium therapy should be given simultaneously with the intravenous therapy. This reduction in symptoms seems cumulative and may be due to a late effect of oral therapy or to some readjustment of the endocrine situation. The first response is subjective and it is hard to rule out the role of suggestion in bringing it about but in the cases having convulsive like attacks there is no question as to the immediate effect of treatment. Symptomatic relief may be marked or even complete before disappearance of the Chvostek sign but as a rule it diminishes in intensity as improvement continues.

And now just a few words about diet should be said. On the surface it would appear that milk would be the food of choice but actually it has been found by Bakwin (7) to have an adverse effect on tetany in older infants and young children. This has been ascribed to the phosphate in the milk, which is very high in cow's milk. This phosphate effect has been previously mentioned in this discussion and for this same reason high phosphorus content foods generally such as milk, egg yolk, and meat, should not be taken more than once daily. A high calcium diet is usually prescribed for tetany but it is probable that the oral calcium salts will furnish much more available calcium than such a diet, and in view of the possibly adverse phosphate effect, probably an ordinary diet with the above simple restrictions would be more sensible.

In conclusion let say that I ask your indulgence in not being too scientific and in presenting a discussion whose diagnosis is perhaps based largely on a hunch but one has a right to his convictions and one of mine is that this business of chronic tetany in a borderline to mild form is a common condition which is the key to many cases of nervousness. One only hopes that some means of proving or disproving this point, more definitive than the serum calcium determination can be developed to clarify and crystallize a syndrome of potentially great clinical importance.

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DISCUSSION

DR. BEN MILLER (Columbia): I have enjoyed the consideration of Dr. Poole's paper. He has brought up for discussion the complicated question of calcium metabolism. The symptomatology which he has described is due to a low level of calcium ionization in the circulating blood. This level is dependent in turn on the mean calcium level and on the acid base balance of the tissue fluids. The former is dependent on the balance of calcium assimilation against calcium excretion.

By the usual analytical methods for the determination of calcium we merely arrive at the milligrams of calcium in the blood and learn nothing at all about the level of ionized calcium.

Calcium ionization is in direct proportion to the total amount of calcium salt present in the circulating blood. Ionization is decreased by anything influencing a shift in the acid base balance toward alkalinity. It is further dependent on the blood proteins and the amount of calcium tied up by the protein molecule.

Hysterical indulgence by nervous individuals manifested by overbreathing will by the loss of carbon dioxide bring about the alkaline shift referred to above. In extreme cases carpo-pedal spasm due to the low level of calcium ions will develop. Protracted vomiting with the loss of hydrochloric acid of the gastric juice bring about a similar change in the blood chemistry and again the symptomatology of low calcium ionization.

A large number of ill defined cases fall in the waste paper basket diagnosis of psychoneuraesthenia and neuraesthenia. Dr. Poole has attempted to clarify certain of these cases and to establish a logical physiological and biochemical approach to their therapy. Certain other members of this group will be picked out when the harmonal disfunctions are better understood.

Again I say that I enjoyed Dr. Poole's paper very much and appreciate the opportunity of discussing it. He has made a definite contribution, and I sincerely hope that he will report to us further along this line.

Dr. Poole's paper was then thrown open for general discussion, and Dr. Wm. H. Prioleau, of Charleston, discussed it as follows:

DR. WM. H. PRIOLEAU (Charleston): I was particularly interested in Dr. Poole's paper. I am not prepared to discuss his contention regarding the prevalence of chronic tetany. However, from the standpoint of thyroid surgery I have been interested in parathyroid tetany for a period of years. On a whole, my observations have been in accord with his, that not infrequently there is a positive Chvostek's sign and the blood calcium level as determined by the usual laboratory method is well within the normal limits—8 to 10 mlgs per cent. I have seen, not infrequently, rather severe tetany without a lowering of blood calcium. Of course, generally it is low, especially at first. I find that hysteria generally accompanies parathyroid tetany, and relieving the tetany will result in disappearance of the hysteria. A remarkable feature in regard to tetany—in man I have never seen severe parathyroid tetany, though I have seen a number of mild cases. The explanation for this, I do not know. I might further add that a positive Chvostek's sign is seen not infrequently in the absence of other symptoms. The Trousseau sign is variable and is not generally present in mild cases.

As to treatment, calcium and cod liver oil by mouth seem adequate in mild cases. Fortunately I have not had a severe case since dihydrotachysterol has come into use, however, I am glad it is available in case of possible need.

Dr. Poole then closed the discussion.

DR. EVERETT B. POOLE: I want to thank Dr. Miller for bringing to your attention some of the features of the mechanics of calcium ion alteration that time did not permit going into in more detail in the main body of this discussion. I think he demonstrated very clearly those various functions and factors that can influence the calcium ion level.

I want to thank Dr. Prioleau for his remarks and his kind attitude toward this controversial subject. In my own experience, I examine everybody for the Chvostek's sign and it seems to me that there are a large number of nervous people with positive Chvostek's who have no other explanation for their symptoms. In the light of our present knowledge all we can say is that the Chvostek's sign is a tentative sign of tetany but must occur in normal people because otherwise they would have some of the symptoms that go with the regular syndrome.

Diagnosis and Management of Carcinoma of the Colon

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During the past twenty-five years surgery of the large intestine has made such progress that the outlook for victims of carcinoma of the colon has been materially bettered. On the other hand early recognition of the condition by the profession has not kept step with the improvement in surgical technique. Marked improvement in final result in these cases is now therefore squarely up to the medical profession as a whole rather than to the surgeon alone. Good final results can only be obtained by early diagnosis upon which it is obvious early operation is entirely dependent.

According to the 1934 report on mortality statistics compiled by the United States Bureau of Census 15.5% of all cancer deaths in that year were from cancer of the bowel. By all standards cancer of the small intestine is so rare that practically the entire reported mor tality can be laid to cancer of the colon.

The rectum, sigmoid and cecum are the areas most often involved. Nearly two thirds of all cancers of the large intestine are palpable on rectal examination and males are more frequently affected than females by a two to one ratio.

Multiple primary malignant growths do occur, and polyps which are so frequently found in the large bowel not infrequently become cancerous. In the right half of the bowel the growths are less apt to take the form of the encircling scirrhous type and are more frequently found on the bowel wall opposite the mesenteric insertion.

Since the large intestine down to approximately the middle of the transverse colon derives from the midgut, it has a function more closely allied to that of the small intestine, namely absorption. The colon from the middle of the transverse downward takes its origin from the hindgut and has for its chief function the storage of bowel material. This difference in function must be kept in mind for it dictates, to a large degree the symptoms, caused by malignant changes.

The large fungating tumors of the ascending colon and cecum arise from the antimesenteric wall of the gut. In spite of their size there is usually ample lumen for the free passage of the liquid stool found this portion of the colon. They do, however, give rise to toxic manifestations. Anaemia, general malaise, loss in weight, weakness, gas on the stomach and discomfort in the right side of the abdomen are not alone symptoms of a diseased appendix or a crippled gall bladder. They are also the symptoms of carcinoma of the ascending colon. If to them be added a little tarry blood in the stool on one or two occasions the picture is almost completed. To wait until a palpable mass appears in the abdomen is to wait too long. A barium enema by a competent X-ray man, perhaps followed by quick emptying of the bowel and inflation with air will yield a surprisingly high percentage of accurate diagnoses. On the other hand, barium by mouth is not only inaccurate but if the tumor should happen to be in the transverse colon or beyond, will cause an amazingly high percentage of complete obstructions. This, of course, adds tremendously to the operative problem and is an entirely unnecessary complication. It is caused by the tendency of the barium to form so thick a paste that the extremely small lumen left by the tumor is tightly plugged.

The vagueness of the symptoms of the ascending colonic tumor, on more than one occasion, have led to operations for the removal of an appendix or a gall bladder, which was not primarily at fault. It is therefore obvious that when one invades the right side of the abdomen in a middle aged patient it is necessary to be prepared to do a resection of the ascending colon should the need arise and that inspection of the colon for a tumor should

Read before the South Carolina Medical Association, Charleston, S. C., May 1, 1940.

always be done when any doubt exists about the adequacy of the pathology found.

The symptoms presented by tumors in the left half of the colon are much more apt to be those of disturbances of the bowel habit and those arising from partial obstruction. This is because the content of the bowel is solid and because the predominant type of tumor is that which encircles the bowel and leaves only a small opening to function as a lumen. It must be remembered too that due to the lack of absorption from this portion of the bowel there is much less toxaemia than in tumors on the right side.

The patients frequently complain of constipation though they are having three or more stools a day. They realize that these stools are small and that they are not emptying the bowel completely. Then too, there is quite occasionally the patient who complains of diarrhea. On close questioning these people usually are found to be constipated but are having several very small passages of mucus which is most frequently mixed with a little blood. The typical ribbon stool so often mentioned in the textbook of some years back, belongs only to a well advanced cancer which is practically in the anus and it is therefore best to forget "ribbon stools" entirely.

The passage of small amounts of fresh blood either mixed with the stool or streaked upon it frequently leads to a diagnosis of haemorrhoids. This diagnosis may be quite right with the important exception that it is incomplete. Cancer of the recto-sigmoid or below is productive of haemorrhoids but their existence must not be permitted to blind the physician to the true state of affairs. A simple rectal examination and a proctoscopic examination of the bowel as high up as the sigmoid are so important that they cannot be over-emphasized. If to these examinations is added a well done barium enema X-ray, the percentage of diagnostic error will be reduced to an entirely negligible figure.

About twenty-five years ago the realization came to a few men, especially interested in the condition, that it was just as necessary to decompress the bowel in cancer of the lower colon as it was to decompress the bladder in obstructing prostates. The adoption of this principle has led to tremendous strides in the surgical treatment of these patients. Because tumors of the right colon do not have the opportunity to produce chronic obstructions so often as those on the left side there is not the imperative need for decompression in these cases. Resection of the ascending colon with either end to side, or in some cases end-to-end anastomosis of the ileum into the transverse colon is a very satisfactory procedure. It may be done in one or two stages depending upon the condition of the patient. If done in two stages the ileum should be sectioned and its end ansatomosed to the side of the transverse colon as the first stage. The second being, of course, the resection of the ascending colon and the inversion of the stump of the sectioned transverse colon.

In cancer of the left colon, if the obstruction has occurred, it may be necessary to do an ileostomy prior to undertaking the main operation. In such instances there should be sufficient time allowed to permit the ileum to assume the function of the absorption of fluids and during this period appropriate measures to combat dehydration are necessary. However, it is far better to avoid the ileostomy, doing some kind of colostomy instead. Obstructive colostomy at an elected site above the tumor is the method of choice. The site selected varying somewhat according to individual experience. If a permanent anus in the abdominal wall is contemplated then its formation may be made the first step in the operation.

Much can, however, be accomplished with proper medical management of those patients who are not completely obstructed. Very frequently limitations of diet to low residue forming material with high food value, accompanied by irrigation, will permit the bowel to empty satisfactorily and the general condition to be improved to the point where a two stage surgical procedure may be unnecessary.

In tumors of the recto-sigmoid and rectum proper it is imperative to remove the glands along the decending branches of the inferior mesenteric artery, namely the superior haemorrhoidal. This means that this vessel must be sacrificed, and of course that the recto-sigmoid and rectum must be removed. The so-called

Miles procedure is then the operation of choice. In it the intestine is sectioned above the tumor and a permenant colostomy made. The mesenteric vessels are then cut at the root of the mesentery and the entire gland bearing area from that point downward removed together with the rectum and anus.

To accomplish this the peritoneum around the rectum is incised and the tumor dissected free with as wide a margin of tissue as possible after the artificial anus has been made and the superior haemorrhoidal artery has been sectioned and the mesentery freed at its root. The bowel to be removed is then stuffed down into the pelvis and the pelvic peritoneum closed over it. The abdominal wound is then closed and the intestine removed through an eliptical incision around the anus, the cavity being packed with gauze. The reader is referred to standard text-books for the details of this rather complicated procedure.

Where the growth is above the recto-sigmoid a modified form of Mikulicz or Paul's procedure is usually the method of choice. Here the mesentery of the colon is sectioned as close to its root as possible with due regard given the blood supply of the portion of the colon to be left in situ. The tumor mass is delivered through the wound and the two ends of the bowel brought out side by side. The tumor is removed by clamping the bowel at the skin level and sectioning it with the actual cautery. Continuity of the intestine is later reestablished by crushing the partition between the lumina of the two ends of the bowel and then later closing the fistula so formed.

End-to-end anastomosis of the left colon is usually strongly advised against, as is cecostomy instead of complete section of the gut for prelimenary decompression. However, in our experience both procedures have been eminently satisfactory in carefully selected cases. Cecostomy has the advantage that it does not upset the water balance of a patient nearly so much as does complete section area but it does seem to put the carcinoma sufficiently at rest to permit complete subsidence of the surrounding inflammatory reaction, and it does accomplish a most satisfactory decompression. This is all that is demanded of even the most radical type of preliminary colostomy. It has the additional advantage that when done after the Witzel method there is rarely any discharge from the cecostomy opening after the removal of the catheter. Ten days of irrigation through the catheter has been adequate in our hands, as preparatory therapy. This is rather strong contrast to the three to twelve week interval often advocated by those using complete section of the gut for decompression and necessitated by the upset in the water balance. Such a long period of time certainly does not lessen the likelihood of metastasis, but obviously increases it by just that much.

The two chief objections to the end-to-end anastomosis in the left colon seem to be the fear of the insufficient blood supply and the difficulty of performing an aseptic closure. If the colon is sectioned angling back from the mesentery rather than straight across the lumen, the circular vessels are not injured during the suture of the gut and the blood supply will be found to be more than ample for primary union.

With crushing clamps of almost any of the newer types more recently introduced and cautery section of the intestine, the anastomosis can easily be done with such slight contamination that it is only of theoretical importance and is not a factor in actual infection. By greasing the jaws of the crushing clamp and thoroughly cooking the line of section with the cautery, the clamp may be removed so that the gut ends remain sealed. This sealing is certainly not tight but is sufficiently good to permit careful suture without having the intestine open up. After the suture is finished, either in this manner or with one of the special clamps designed for the purpose, the lumen is opened by simply manipulating the gut with the fingers.

There is, of course, the theoretical objection that there is left a kind of shelf of crushed tissue within the lumen of the gut which might lead to haemorrhage or other complications. This objection seems to be entirely theoretical. On the other hand, there are definite advantages to the end-to-end method. For one thing it is certainly more physiologic than either the Mikulicz type or the side to side. It also permits the accomplishment of an

anastomosis at times that would be impossible by any other means because of the lack of sufficient mobility of the intestine. It does provide at times a temptation to be less radical in the removal of the growth in order to avoid the artificial anus which must be closely watched less the final result suffer. Considered by and large it is a distinct addition to the armamentarium of the surgeon and should not be overlooked.

Summary: Further marked improvement in the results in cases of cancer of the colon probably will only come with early diagnosis of the condition.

Improvement in surgical technique has been such that these patients have a right to expect a reasonably low mortality and morbidity rate.

The use of the end-to-end anastomosis even in the left colon should be frequent and the advantages of the cecostomy more fully appreciated.

DISCUSSION

DR. WM. H. PRIOLEAU (Charleston): Dr. Doughty has given an excellent presentation of a very important subject. It is so complete that it would be difficult to add to it. However, I would like to stress two points which I think are of particular importance to those of us here.

The first is that changes in the bowel habit, almost regardless of the nature of the change, should be followed by further investigation. The investigation which Dr. Doughty mentioned can be performed with relative ease by speculum examination of the rectum and a barium enema.

The other point which I think should be stressed is that a prerequisite to a satisfactory result in operating upon the large intestine, or small also so far as that is concerned, is proper preparation of the patient—that is, the intestine which is operated upon must not be distended because such bowel is not in proper condition for the best healing. The ends of the intestine to be anastomosed must be healthy and have good blood supply; and the suture line must be protected from tension both within and without the bowel if satisfactory healing is to be expected.

DR. GEORGE H. BUNCH (Columbia): I congratulate Dr. Doughty upon his admirable presentation of the surgical treatment of cancer of the colon. His pictures add materially to the paper. The spirit of hopelessness and defeatism on the part of both the layman and the physician in regard to this condition is no longer warranted provided it is suspected and the patient is operated upon before the opportunity for surgical cure has been allowed to pass forever. Cancer of the colon metastasizes late and in the early stages is quite amenable to surgical treatment. Undoubtedly the chief factor today in the mortality rate is early diagnosis.

Change of bowel habit, with or without palpable mass; chronic indigestion, with or without pain; secondary anemia, with or without rectal bleeding; loss of weight in middle aged or elderly individuals are the common symptoms of cancer of the colon. When one or more of these is present proctoscopic and X-ray examinations are strongly indicated. Lesions of the right colon are more apt to ulcerate and to cause secondary anemia. Lesions of the left colon are more often annular and obstructive in type.

In the sigmoid the barium enema is most helpful in diagnosis. In obstructive lesions no attempt should be made to force the medium beyond the obstruction for fear of causing peritonitis or uncontrollable hemorrhage from rupture of the friable intestine.

Certain principles are fundamental in the operative treatment of cancer of the colon. Obstruction is a symptom of late cancer. Acute obstruction is a positive contraindication to primary resection. Colostomy for the relief of the obstruction should be done at the first operation and resection reserved for a later, second stage, operation.

In cases without obstruction resection in one stage with aseptic anastomosis of the intestine is the ideal procedure, although in the hands of most surgeons it has a higher mortality rate. When the growth may be sufficiently mobilized it should be exteriorized and the abdominal wound closed about the involved segment. In a few days the wound becomes sufficiently sealed so that the growth may be removed extraperitoneally and without danger of peritonitis. Later the fecal fistula can be closed under local anaesthesia.

In resecting the right colon we anastomose the terminal end of the ileum into the side of the transverse colon with a Murphy button. This is quickly and safely done and we have never lost a patient after it.

In cancer of the colon, when exterioration cannot be done, resection can be accomplished with but little danger of peritonitis by doing colostomy as a first stage, as advocated by DeVine. The colostomy should be made with the ends of the proximal and the distal segments of the colon brought out through openings two inches apart on the skin surface, so that fecal soiling of the distal segment from the proximal segment may be prevented. Through and through irrigation of the distal segment with mild antiseptic solution for a few days makes this practically aseptic so that it may be removed at a second stage operation without danger of peritonitis. Ninety per cent of the deaths from resection of the colon are from peritonitis.

DR. ROGER DOUGHTY: I appreciate the discussion very much. There are one or two points I want to bring out.

As to the limited operations—that time, in my humble opinion, is gone. Much more radical procedure is necessary to obtain the results that we have mentioned, and yet, with a relatively low percentage of mortality.

Many of these people with carcinoma of the ascending colon have had appendices and gall bladders removed that had nothing to do with their illness. When you operate for the removal of an appendix or gall bladder in an older person, you must be prepared to do a resection of the ascending colon. The mortality ought to be a relatively small per cent, certainly less than ten per cent.

I don't agree with Dr. Bunch about the DeVine method of decompression, for several reasons. In the first place, if you do a complete section of your colon or ileum, right half, you produce dehydration in the patient. Delay is necessary for from three to twelve weeks, which permits that much chance for metastases. It is too great a delay. There is additional contamination of the main abdominal wound. I do not think that the complete diversion of the equal current has sufficient advantage over the partial diversion in putting at absolute rest the area of carcinoma, to offset this disadvantage. In my experience cecostomy puts at sufficient rest the carcinoma area almost as effectively as the complete colostomy does. I can only speak from my own personal experience and the trend which is developing among surgeons is to discard the DeVine method. Peritonitis is one of the chief causes of death but we have learned to handle that. I am confident that when you put your patient in better shape with proper preliminary treatment and proper diet for a week or ten days after the preliminary decompression, you can operate upon a patient who is a relatively good surgical risk and expect a good result.

I thank you. (Applause).

The Conservative Management of Pelvic Infections

J. A. SASSER, M. D., CONWAY, S. C.

Pelvic inflammatory disease is one of the greatest tragedies in a woman's life. No longer confined to the lower class; now, an increasingly frequent disease of the upper social strata.

In the past, since the disease was more prevalent in the prostitute and negro, conservative therapy was economically impracticable. The usual procedure was, and I must say still is, in some clinics, to wait until the acute condition subsides, and then, if indicated proceed with eliminative surgery.

The busy general practitioner is daily reminded of the results of such radicalism. Most any morning in his office, he will see women, nervous and mentally sick, not from disease, but as the result of radical pelvic surgery. These unfortunate victims are constant and faithful patients, seeking some help in readjusting their nervous system. Unfortunate but true, these patients are further victimized by the unscrupulous "shot" doctor.

Read before the South Carolina Medical Association, Charleston, S. C., May 1, 1940.

The statistical survey of any pathological laboratory, and I venture the assertion, that we will find a large incidence of tubes, ovaries and uteri, with insufficient pathological changes, to justify removal. I might add, there would be the usual scarcity of testicles for pathological study. Perhaps, orchectomy would be a more common procedure if we had more women surgeons.

The family physician's labors are not confined to preventive and curative medicine. He is also confidential advisor to the family. In analyzing the marital maladjustments, sexual incompatibility is usually a distinct factor. It is the duty of both family physician and surgeon, to help his patient in the maintenance of physiologic life.

Pelvic inflammatory disease has been defined as inflammation in the pelvis outside the uterus. Structures involved in the inflammatory process are the fallopian tubes, ovaries, pelvic cellular tissue and peritoneum must be added these instances in which metritis or parametritis, or both are found to accompany

inflammation of any or all of the foregoing structures.

The causative organisms and their frequency are namely: gonococci about seventy per cent; streptococci and associated staphylococci twenty to twenty-five per cent, and tubercular bacilli five to ten per cent.

The gonococcus is usually deposited within the vagina by an infected consort. After an incubation period of from six to ten days, the organism spreads by surface invasion to the urethra, skene's ducts, periurethral and bartholiam glands, then to the cervix and cervical glands.

The invasion of the uterine cavity is blocked by the mucous plug of the cervical canal. However, as the result of trauma, vaginal examinations, instrumentation or coitus; and in addition, the washing away of the mucous plug by menstruation, the organism might spread upwards thru the uterine cavity, to the lumen of the fallopian tubes. The infection extends in some cases on thru the fimbriated end of the tube, involving the ovary and pelvic peritoneum.

The gonococcus produces erosion of the tubal mucosa with resulting adhesions and in some cases a localized abscess. The streptococcus, a secondary invader, produces the associated pelvic cellulitis. The gonorrheal organism is short lived, exacerbations are unusual; and such events are usually the result of reinfection.

There are several lower abdominal lesions that might be confused with acute salpingitis—chief among these are: acute appendicitis, pyelitis, ectopic pregnancy, pelvic cellulitis following abortion and acute tubercular salpingitis.

The history of smarting following voiding; acute Bartholinitis and a recent Leukorrhea—and the presence of the diplococcus of neissir in the smear will usually decide the diagnosis.

Before entering into the discussion of the treatment of acute and chronic infections of the pelvis proper, I am going to briefly outline the management of the case while the infection is still confined to the vagina.

Treatment:

Acute Stage Gonorrheal Vaginitis

1. Absolute rest in bed, in Fowler's position.

2. Sulfanilamide therapy: 80 grains for two days, 60 grains for two days, 40 grains for two days, then 20 grains daily.

3. Incision of local abscess.

4. Vaginal examinations, douches or any type local treatment contraindicated.

In the management of Acute Gonorrheal Salpingitis:

Absolute rest in bed, in Fowler's position with an ice cap to the lower abdomen. Remember we are treating a pelvic peritonitis, and every effort should be made to localize the infection.

Narcotics are given freely.

Sulfanilamide in large dosage.

If there is distention present, fluids by mouth are withheld, and the intravenous route substituted.

A high temperature is a favorable factor in destroying the organism.

The *don't for* both patient and doctor are important.

Exercise, strong laxatives, alcoholic beverages and intercourse are prohibited. Likewise, operations are restricted to drainage of localized collections of pus through the cul-de-sac. Vaginal examinations should be very infrequent. Enemas and rectal examinations might spread the organism to the rectum producing a proctitis.

Our experience with artificial fever therapy is very limited, confined to elevations induced by injections of foreign protein. The methods of producing heat by enclosing the entire body in electrically heated cabinets is still very popular in some clinics. I prefer the local application of heat to the genital tract by the Elliott method.

This consists of a supply of water under controlled pressure and temperature at one hundred and twenty-five degrees that circulates through an elastic applicator which has been inserted into the vagina. The use of heat to the pelvis improves the local circulation, produces leukocytosis, promotes absorption of exudates and it has been proven by Book, Carpenter, and Warren that most strains of gonococci are destroyed at a relatively low temperature (one hundred and five degrees).

In the consideration of the Chronic Stage of Gonorrheal Salpingitis:

First, it is necessary to rule out other conditions before beginning treatment. The most frequent are: pelvic endometriosis, adnexal tuberculosis, diverticulitis of the sigmoid, uterine fibroids, ovarian cyst and chronic appendiceal abscess.

The history is by far the most important—not only the patient's past genital ailments, but also inquire about the health of the consort. Has he been treated for "so called" kidney trouble? Repeated examinations of urethral and cervical smears, the leukocyte count and sedimentation rate. A careful bimanual examination will usually be the deciding factor in a correct diagnosis.

It is our practice in selected cases, to begin with daily intravaginal heat treatments by the Elliott method. We find that this method of application of heat to the pelvis has produced encouraging results. A great many patients have cleared up without surgery; we believe the adhesions are less dense, the surgical procedure easier and less radical. Sulfanilamide is given and in addition any vaginal infection, as infected bartholin glands, skene's ducts and cervical infections is eradicated before the abdomen is opened.

Why should we be so crude as to do a salpingectomy and leave an active focus within the vagina?

Only today, I examined a young woman, who only four weeks ago had a bilateral salpingectomy for chronic gonorrheal salpingitis in a large clinic in a nearby state. She still has pain, a profuse leukorrhea, the cervix is red and chronically infected, the broad ligaments are thickened and very painful, the urethral smear positive for gonococci. The focus within the vagina should have been eradicated before opening the abdomen.

It is surprising how many of these cases with a hopeless outlook will recover, conceive, and give birth to a normal baby.

Therefore, give nature a chance, particularly if there are no children and do reconstructive ultra conservative surgery.

I would like to mention this case as an example. Some five years ago, I did a unilateral salpingectomy for ectopic pregnancy on a young woman. She had two living children and requested me to ligate the other tube. She had lost considerable blood and was a poor risk. The pregnancy was in the left tube, the right tube was hopelessly bound down with adhesions and apparently the fimbriated end sealed off. I was sure pregnancy could not occur, therefore the tube was not disturbed.

During the past year she returned with a pregnancy at term and with a premature separation of the placenta. We did a section immediately, and to my surprise the tube had almost completely recovered.

Post gestational infections are on the increase, especially in the abortion cases.

Pregnancy out of wedlock is becoming increasingly frequent in our community, probably as the result of a lack of proper parental guidance, a lack of proper sex hygienic education, the return of alcoholics and automobiles with a longer wheel base. With the presence of this condition, there likewise has been an increase in the number of abortionists. Practically every town has its professional abortionist, while organized medicine stands idly by and refuses to raise a voice against this crime.

In the post gestational infections the invading organism is usually the streptococcus, following instrumentation either in the management of labor or incomplete abortions. Instrumental intervention, except in severe hemorrhage, in febrile incomplete abortions, disturbs the protective barriers, and is contraindicated.

In the septic infections the organism spreads by the lymphatics and the venous route to pelvic cellular tissue and parametrium.

The infection usually becomes localized in the broad ligaments and cul-de-sac of Douglas. Any involvement of the fallopian tubes is usually a perisalpingitis. Adhesions are dense. Thickening of the broad ligaments is characteristic and prolonged. The streptococcus, unlike the gonococcus, is long lived and may remain within the pelvic cellular and glandular tissues for years.

Any operative procedure in the early stage is limited to cul-de-sac or extra peritoneal drainage of a localized abscess.

These patients become anemic early and there is a rapid and continued destruction of erthrocytes. Transfusions should be given fre-

quently. Sulfanilamide in large dosage. Absolute physical and mental rest.

Fowler's position and an ice cap to the lower abdomen.

Nasal tube with suction for intestinal rest.

Analgesia and sedatives.

Elliott heat treatment.

As mentioned, tuberculosis of the adnexa comprises less than five per cent of all pelvic cases.

It is unusual to make a correct preoperative diagnosis of tuberculosis of the tubes.

However, there is one valuable diagnostic point to remember. In gonorrheal salpingitis there is usually too much uterine bleedings. Tuberculous salpingitis is accompanied by an absence or scanty menstration.

History of pulmonary disease: 50% have tubercular endometritis.

DISCUSSION

DR. FRANK G. CAIN (Charleston): Mr. President, I agree with Dr. Sasser and he has adequately covered the subject which was under discussion. If I were limited to one procedure in the treatment of acute gonorrheal infection of the vaginal passage, I would certainly put my patient to bed, if that was the only thing I could do. I believe absolutely in bed rest in acute gonorrheal infections. I think the prolonged rest is of the greatest importance. We should remember that the time to spread infections to the tubes is at menstruation and it is a wise procedure to have your patient remain in bed for at least a week or ten days after the last period. I think that is highly important. The present use of the popular therapeutic agent, sulfanilamide, has its limitations. Dr. Sasser, in his paper, suggested sulfanilamide preparation in good quantities. Of course, I don't believe in giving a bottle of sulfanilamide tablets and leaving them with a patient ten miles from you with nobody watching. I think that is a tremendous mistake and sooner or later somebody is going to get into a lot of trouble. You have got to watch your patient for evidences of destruction in white cells and also for the fall of the red count. Occasionally we have seen a granulocitic angina following the use of sulfanilamide in carelessly treated cases.

The local high temperature induced by the use of the Elliott machine, to my mind, is probably the best type of treatment which we have. I don't believe you will get any results from the use of induction for application of heat to the pelvis because skin temperature won't get over above 105 and if you persist in its use, you are going to get a dermatitis or at least a burn of the skin, but increase of the internal temperature produces the results that Dr. Sasser mentioned.

When it comes to chronic infections, we are still going to have what I term chronic suppurative salpingitis where cellular changes are in the walls of the tubes. I don't believe any sulfanilamide or heat treatment or anything else is going to prevent the return of that type of trouble. You are going to have to resort to surgery. In a young woman, particularly, I think our efforts should be toward conservation of ovarian efficiency, if possible, and depending on the amount of disturbance of menstrual function whether hysterectomy is done at the same time, provided the tubes are closed and you have to take them out. I see no reason for operating on tubes that are not causing trouble. You have got to look elsewhere. You are most likely to find it in ovarian pathology. In late life it might be justifiable to remove the ovaries. I think it is better for a woman to suffer some pain than to be completely upset by artificial menopause.

Dr. Sasser speaks of the conservative treatment for chronic salpingitis. I heartily agree with him to go ahead and treat the cervix actively before opening the abdomen, because if you have a patient with a chronic pelvic infection, you will safeguard yourself and the patient by not being too active in the treatment of the cervix when you do not open the abdomen immediately. Not infrequently there sets up a reinfection and if not a reinfection, a flareup of the old trouble, and you go over the same trouble. I have had it happen to me. I don't practice active treatment of the cervix now unless I go into the abdomen when chronic pelvic inflammatory disease is present.

DR. A. J. BUIST, JR. (Charleston): I wish first to congratulate Dr. Sasser upon his well written and interesting paper. He has touched upon a subject about which I think we should hear more, and certainly those of us who do gynecological surgery and see much of our patients subsequent to the operations they have undergone will agree with him that the conservative approach to pelvic surgery is by far the best.

Most of us are fully aware of the unpleasant sequelae which so often follow the removal of the tubes and ovaries in women, whether this removal be justified or not. Not only does the operation forever prevent the woman from having any children of her own, a factor which is so often prone to develop domestic unhappiness, but many of these women go through months, and in some instances, years of emotional and physiological unbalance while their unseated endocrine function attempts to readjust itself. While it is true that substitutional hormone therapy can in many instances make life more pleasant for these unfortunates, it cannot present a childless family with children, and the therapy itself, being expensive, is most often out of the financial reach of those needing it, for most

often these patients are of the low income group.

There are however, many instances in which conservatism can be carried too far. Frankly, I know of several instances in my own work in which, in retrospection, I wish that I had been more radical. Often it is in the Roper Hospital clinics that we see women return with menorrhagia and tubo-ovarial pathology necessitating secondary operation when such secondary procedure would not have been necessary had the operator been more radical at the time of the first admission. Personally, in many instances, I know of no more difficult decision to make after opening the abdomen and viewing the pathology than whether to be radical or conservative. In the one case the woman is faced with an artificial menopause and all its associated unpleasant sequelae, and on the other she may be faced with a continuation of her symptomatology after a brief interval, with the necessity of a secondary operation. There are several factors which I think should help to guide us in our decisions in these cases.

As far as the primary acute cases are concerned, I agree most heartedly with Dr. Sasser in that every effort at conservatism should be employed. Certainly no abdominal operation is indicated while the patient is in the acute stage, and as we all know, under conservative management a large percentage of these women will recover from their infection with no ill effects whatsoever.

In chronic pelvic inflammations one should be guided first, by the age of the patient. In young women, and in unmarried women, every effort should be made to conserve not only the ovaries, but the tubes as well, in order to preserve the menstrual and reproductive function. The presence of children in the family and an approach to the time of the normally expected menopause makes toward less necessity for conservatism.

Secondly, the mental and social status of the patient is of considerable importance in deciding what course to follow. Bed rest at the time of the menses, freedom from activity, the use of douches, suppositories or heat treatments require cooperation. If the patient is unwilling or cannot understand the necessity of cooperation, then I believe that conservatism will fail. Similarly, if the woman is from a social class where for financial reasons she cannot afford to stop her work in order to obtain rest at the time that she needs it, or the medications and treatments when indicated, then I believe that conservative methods will often fail and secondary operations will be necessitated. Certainly, this last has been demonstrated time and time again to us in the Roper Hospital clinics, for rest and freedom from physical activity at the time of the menstrual periods is essential in the conservative treatment of pelvic inflammatory disease.

Third, the possibilities of reinfection should be considered. As Dr. Sasser has pointed out, it is essential in the treatment of these women that all foci of infection about their reproductive tracts should be eliminated. A source of infection which to my mind is just as serious as any focus that the woman may have is one that is often to be found in her husband. It is useless to clear up a Batholinitis, Skenitis, or cervicitis, and have the woman return to her husband and immediately become reinfected. Conservatism will prove of no avail if the husband is not investigated in all cases of gonorrheal infection, and cured if found to be infected. Along these same lines, and a factor which plays a part in not only the negro race where we have grown to accustom ourselves to it, is promiscuity. This, like the husband, is sometimes a focus for reinfection, but differs from him in that it is often impossible to detect and eradicate.

DR. ROGER DOUGHTY (Columbia): I hate to say anything at such a late hour. One point the essayist made, I want to emphasize. In the recurrent pelvic infections, the infection is usually due to streptococcic organisms rather than gonococcic. We are trying to be conservative in a lot of women when we indefinitely postpone operation. Indefinite postponement is anything but conservative. You can go in and do a conservative operation prior to the advent of a secondary invading organism, but not afterward. Postponement beyond a certain point means nothing but destruction of ovary and tubes, hopeless destruction. Operation in the recurrent type of case is conservative and proper, provided the surgeon is conservative in his action.

The paper was well presented and dealt with a topic much in need of more accurate thinking on our part. The points made were well taken and excellently marshalled.

DR. A. F. BURNSIDE (Columbia): I want to preface my remarks by first saying that what I am going to say is probably out of line with a good deal of modern theory. I have never seen where sulfanilamide in acute salpingitis is any good. If you put the patient to bed and let her rest and discontinue all food and intravenous therapy if necessary and leave the peritoneal cavity absolutely at rest, most of it will subside as well as if it were treated with sulfanilamide.

Second, if a woman with acute salpingitis has three or four children depending on her for a living, I certainly think that conservative treatment for that woman is the immediate removal of both her tubes. Save her ovaries and she can continue to do her work.

DR. SASSER: In closing this discussion, I wish to emphasize two points:

1. The importance of removing all vaginal infections before the execution of any intra-abdominal procedure. We must bear in mind that the focus is within the vagina spreading either by surface invasion or by the lymphatic route. It is our practice

to clear up these vaginal infections as an office procedure permitting the cervix to completely heal, then the laparotomy is done.

2. The purpose of this paper is to outline treatment for the girl who lives on Main Street. She usually has both the time and money for prolonged treatment.

Fracture of the Skull with Unusual Complications

G. T. TYLER, JR., A. M., M. D., GREENVILLE, S. C.

Q. Y., No. 2677, a white boy aged 16, was brought to the Greenville General Hospital on the night of June 26, 1938. The car in which he and his companions were driving, all of them tipsy, turned over. He was knocked unconscious; and sustained a brush wound over the face, and the left eye; also a fractured skull. There was bleeding from the nose. He vomited blood. The blood pressure was 124/94; pulse 88. After midnight he regained consciousness, recognizing his sister, but he complained of pain in the back. 50 cc. of 50% glucose was given intravenously on admission, and repeated the following morning.

He had all the evidence of a fractured skull, including a dilated left pupil. Spinal fluid on the 28th was bloody. Though the general condition was fair, the persistent dilatation of the left pupil strongly suggested intracranial hemorrhage on that side, especially as he had regained consciousness and had afterwards lapsed. On the 28th, a left subtemporal decompression was done under novocain and ether. The brain bulged when the dura was opened. No extra- nor sub-dural hemorrhage was found; but when the brain was retracted, serum followed by blood escaped from the anterior fossa of the skull. The dura was left open. The wound was closed in layers with interrupted sutures, capillary drains being placed at each angle. Reaction from the operation was satisfactory.

Next morning he tore off his dressings. He complained also of severe headache and pain in the back. Restraining sheets were necessary. Hyoscine also was required. Rectal temperature at noon was 106.4 F.; the pulse 98, respirations 20. Urine and stools were involuntary.

X-ray of the skull on the 30th revealed the fracture in the left tempero-parietal region. The neck at this time was rigid. Cloudy spinal fluid came away under pressure. Culture was later reported as streptococcus hemolyticus. Sulfanilamide gr. XX q. 4. h. was begun. Continuous spinal drainage through a ureteral catheter in the lumbar region was established on July 1st, and hypotonic salt solution was given intravenously. The catheter was removed after 4 days because it became plugged. Subsultus tendinum was noted. He continued desperately ill; though the temperature began to fall 24 hours after sulfanilamide was begun. Transfusions of citrated blood were given on July 2nd, 4th, and 6th. After July 4th he regained control of urine and feces. From this time, his improvement though slow was continuous.

Stitches were removed on July 5th. The wound was apparently healed; but next day the edges separated and it broke down. Smears and cultures revealed streptococcus and staphylococcus. A cerebral hernia resulted measuring about 3 inches in diameter. It was dressed daily with moist gauze.

On July 7th, Dr. J. W. McLean examined the eyes. His findings were: right eye normal, left eye turned outward: the pupil is widely dilated: subconjunctival hemorrhages are on the temporal side of the globe: there is paralysis of the 3rd, 4th, and 6th nerves due to the intracranial condition: the fundal veins are somewhat engorged.

On this date (July 7th) cultures from the spinal fluid were reported negative. The white cell count, however, was 12,400. Next day a blood culture was taken. Staphylococcus was grown. Sulfanilamide had been reduced; but

with this finding in the blood stream, it was increased to gr. XX; and transfusions were continued on July 9th and 11th. Boric acid compresses and bichloride ointment were used on the left eye until it was restored.

The temperature reached normal on July 14th; and remained so. On this day sulfanilamide was discontinued because the blood culture taken on the 12th was reported negative. The left eye had regained its normal appearance. Staphylococcus toxoid in 0.5 cc. doses was given daily for three doses; then every other day for three more doses. It was begun on the 11th. I question whether it had any virtue.

The patient was out of bed on July 23rd. There were no symptoms except a cerebral hernia and a few small bed sores. The hernia was gradually reduced by cauterizing the periphery of the brain substance just within the skin edge at 2-day intervals until the brain tissue was level with the skin. Finally, about Sept. 1st, after he had been nearly a month in the out-patient department, the wound was healed. The patient was discharged entirely recovered.

The transfusions, five in all, were given to increase the patient's resistence; but they served the additional purpose of preventing anemia from the continued (15 days') use of sulfanilamide. The hemoglobin ranged around 76% throughout the illness. The loss of brain substance in no way disabled the patient. Neither motor paralysis nor sensory impairment resulted.

It is a unique experience to have a patient recover from a cranial fracture complicated by streptococcus meningitis, staphylococcus blood stream infection, and a post-operative cerebral hernia. In order of importance, sulfanilamide, transfusions, fluids, together with good care, are responsible for the unusual outcome.

June 10, 1940. The patient was seen this morning. Vision is apparently normal, though he says he cannot see fine print with the left eye. The field of vision and movements of the globe are normal. At the site of operation, the bone has not regenerated. There is no bulging of the brain. Speech, motion, and sensation are not impaired. If he becomes heated on exertion, he has "queer" sensations in his head. He leads an active life.

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Medical Building ---------- Seneca, S. C.
Subscription Price ---------- $3.00 Per Year

OCTOBER 1940

DUKE UNIVERSITY REFRESHER COURSE

Elsewhere in this issue appears the program of the Symposium on Diseases of Metabolism and Diseases of the Blood Forming Organs to be held by Duke University School of Medicine and Duke Hospital at Durham, North Carolina, October 31, November 1 and 2. South Carolina doctors have been attending these courses in recent years in considerable numbers and have been enthusiastic about them. It will be noted that all of the speakers are outstanding and most of them are extraordinarily well known not only in this country but abroad. The symposiums are changed from year to year as a result of questionnaires sent out to learn what the majority of physicians in the South would like to have stressed. In this connection the home-coming football game Duke vs Georgia Tech provides special entertainment.

THE PIEDMONT POST GRADUATE CLINICAL ASSEMBLY

For the first time the Journal presents a pictorial view of the different sections of the Anderson Clinical Assembly which has just come to a successful close with the usual large attendance. The future progress of the Assembly would appear to be promising under the guidance of the officers recently elected. These assemblies are growing in interest throughout the country and rival state meetings in their attendance and scope of programs. They are not intended to interfere with the formal meetings of county or district societies but to stimulate further developements in the practical application of the science and art of medicine on the part of the busy doctor. Most of them are conducted around a good hospital as a clinical center which is another evidence of the purpose of the movement.

FOUNDERS DAY MEDICAL COLLEGE

One of the most interesting events in the fall every year is that of the celebration of the founding of the Medical College of the State of South Carolina. This year the date falls on November 7. The chief speaker will be Dr. Louis Hamman, Associate Professor of Medicine, Johns Hopkins University. Some of the other speakers will be Dr. Samuel Ravenel of Greensboro, Dean of the Southern Pediatric Seminar, Dr. J. R. Young of Anderson, past President of the South Carolina Medical Association, and Dr. W. R. Mead of Florence, internist on the staff of the McLeod Infirmary and a member of the State

Board of Health. One of the chief features of these annual meetings is the brief refresher post graduate course and the following local doctors will participate therein, Doctors J. S. Rhame, A. L. Rivers and J. E. Boone. A pathological conference in the afternoon and a banquet at night will conclude the program.

FOURTH DISTRICT MEDICAL SOCIETY

District medical societies in South Carolina have grown greatly in favor in recent years on account of the splendid scientific programs they present. The Fourth District Society is the oldest one of them in South Carolina and within the area there are about three hundred doctors. The meeting to be held at Spartanburg on October 21 should attract at least half of these doctors for the program offers a wide range of subjects most doctors are interested in. Spartanburg always measures up one hundred per cent in her hospitality when any medical convention has the good fortune to be meeting there.

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GREENVILLE COUNTY MEDICAL AUXILIARY

Mrs. Charles P. Corn, President of the Auxiliary to the Southern Medical Association, was the speaker on Monday afternoon, September 9, at a meeting of the Auxiliary to the Greenville County Medical Society which was held at the home of Mrs. L. H. McCalla on McDaniel Avenue.

Mrs. Corn has attended seven state conventions in recent months and brought back an interesting report of the work in each of the states which she visited in her official capacity.

In speaking of the work of the Auxiliaries to the Virginia and North Carolina Medical Association, Mrs. Corn pointed out that members there have endowed beds for tubercular patients in two sanitoriums. They are memorial beds in whose use members of doctors' families are given preference but they are available at all times for others.

In Georgia members of the Auxiliary are doing an outstanding work in the distribution of Hygeia. This state won the national prize for having secured the greatest number of subscriptions last year.

In West Virginia the State President is also President of the National organization. She is Mrs. W. E. Holcombe of Charleston.

In Alabama the Auxiliary maintains a student loan fund not only for a boy but a girl as well.

An outstanding feature of the New York convention which Mrs. Corn recently attended was the music by the orchestra composed of 75 doctors which played in concert at one of the outstanding meetings of the Medical Association and its auxiliary.

Mrs. Corn also attended the meeting of the South Carolina Auxiliary in Charleston and she reported briefly on that.

Music for the local auxiliary meeting was furnished by Miss Betty Powe, violinist, accompanied at the piano by her mother.

PICKENS COUNTY MEDICAL AUXILIARY

Mrs. N. C. Brackett, Hostess

The members of the Pickens County Medical Auxiliary met at the home of Mrs. N. C. Brackett for their August meeting. Mrs. P. E. Swords, President, opened the meeting and led the devotional with Mrs. Valley giving the prayer.

After reports were given plans were made for the fall work and ways and means were discussed. A "thrift sale" for the treasury was auctioned off by Mrs. J. W. Potts and a nice sum was realized.

Those present at this meeting were; Mrs. P. E. Swords, Mrs. J. L. Bolt, Mrs. N. C. Brackett, Mrs. W. B. Furman, Mrs. Byrd Lewis, Mrs. J. W. Potts and Mrs. J. L. Valley.

The hostess served delicious refreshments at the close of the meeting.

Ruth de Saussure Furman,
Publicity Chairman

OCONEE COUNTY MEDICAL AUXILIARY

The Oconee County Medical Society Auxiliary met with Mrs. J. N. Webb at Seneca, Monday afternoon, September 9, with Mrs. S. H. Ross, President, presiding.

The meeting was opened with prayer by Mrs. Royce Flynn and scripture reading by Mrs. J. E. Orr. Several matters of importance were discussed during the business session and the fact was made known that a chair had been purchased by the Auxiliary for the Oconee County Hospital Library for the use of doctors who wished to find references in the medical books placed in the library by the Oconee County Medical Society. It was a source of gratification to the Auxiliary to learn that this project which they had been working on for several months had been completed.

Miss Leola Hines, delegate to the South Carolina Medical Association Auxiliary Convention from the Oconee County Medical Auxiliary and alternate delegate to the American Medical Association Auxiliary from the South Carolina Medical Auxiliary reported on the State Convention which was held in Charleston, May 1st and 2nd and the National Convention held in New York, June 10-14.

Dr. E. A. Hines, Secretary of the South Carolina Medical Association, was the guest speaker. His subject was "Socialized Medicine. Its Effect on the Doctor and the Public." Dr. Hines sketched in an interesting manner the events leading up to the present agitation for socialized or state medicine as it is sometimes called and the possible effect on physician and patient should it come to pass in this country.

At the close of the meeting the hostess served a delicious sweet course.

SPARTANBURG COUNTY MEDICAL AUXILIARY

The Womans Auxiliary to the Spartanburg County Medical Society held its first meeting of the year, Tuesday afternoon, September 24 at the home of Mrs. I. A. Phifer with Mrs. Phifer, President in charge presiding.

The following chairmen for 1940-41 were announced:

Program—Mrs. E. B. Saye
Publicity—Mrs. R. Dennis Hill
Hostess—Mrs. John M. Fleming
Ways and Means—Mrs. Joseph Allen
Jane Todd Crawford—Mrs. J. L. Jeffries
Public Relations—Mrs. J. C. Joseph
Membership—Mrs. Jesse O. Willson
Personal—Mrs. J. J. Lindsay
Student Loan Fund—Mrs. A. R. Fike

Mrs. C. P. Corn of Greenville, S. C., President of the Womans Auxiliary to the Southern Medical Association, was the guest speaker and made a very interesting talk.

Dr. Ruth Frank Pugh of Converse College was a guest of the afternoon.

After the meeting the hostess served an iced course. Hostesses assisting Mrs. Phifer were, Mrs. E. R. Fike, Mrs. E. B. Saye, and Mrs. W. G. Morehouse.

Respectfully submitted
Mrs. Dennis Hill,
Publicity Chairman

Pathological Conference, Medical College of the State of South Carolina

KENNETH M. LYNCH, M. D., PROFESSOR OF PATHOLOGY

April 12, 1940

Case of Dr. F. E. Kredel

Clinical Record by Student E. N. Sullivan

ABSTRACT NO. 416 (63366)

Student Sullivan: (Presenting)

History: A 51 year old negro man complained of "pain in back and weakness in stomach." Six weeks prior to admission a dull gnawing pain began in the lumbar region. Two weeks later there was retention of urine for 3 days during which time only a "few drops" were voided daily. Medicine obtained from a druggest "scattered" the lumbar pain. About the same time patient noted "a weakness in his stomach," loss of appetite and the sense of a lump about the size of a golf ball in his epigastrium which seemed to interfere with food passage. Became nauseated after eating but did not vomit. Was told by friends that the "whites" of his eyes were yellow. Claimed to have lost about 30 lbs. in weight since onset of P. I. Constipation of 4 weeks duration. Past medical history and review of systems not remarkable.

Physical: T-98 P 84 R-18

The patient was a fairly well developed and fairly well nourished negro male who did not appear acutely ill. The skin was warm and dry. The sclerae were not markedly icteric. Bilateral arcus senilis, pupils reacted to L. and A. Nose, throat, ears not remarkable. The chest was clear to percussion. The heart was normal in size to percussion, rate 84, rhythm regular, sounds of good quality and no murmurs heard. B. P. 105/75. Examination showed the abdomen to be scaphoid. There was muscular rigidity over the epigastrium and tenderness to deep pressure in this region. There was a palpable mass, smooth in contour, midway between the umbilicus and the right costal margin, apparently extending downward from behind the latter. No other organs or masses were felt. One or two external hemorrhoids were noted. The prostate was of average size and consistence. Slight tenderness to pressure over the 9th dorsal vertebral spine. The deep reflexes were uniformly hypoactive.

Laboratory:	Urinalysis	Blood	
How	Voided	Hb	14gm.
Color	Dark brown	RBC	5,240
React.	Alk.	WBC	4,800
Sp. Gr.	1.030	Polys	54%
Alb.	2 plus	Lymphs	34%
Sugar	0	Monos	9%
Casts	0	Eos.	1%
Bile	2 plus	Bas.	2%
Urobilinogen	1 plus	Bleed. time	2 min.
Pus	0	Clot time	6 min.
Blood	0		

Blood Chemistry
Icterus Index 68
Van den Bergh—Direct 4 plus
Quant. Bilirubin 14.8 mg.
Stool
Color—Greenish yellow
Consist.—Firm
Blood—4 plus
Fats—1 plus
Bile—Neg.

Blood Serology: Kolmer—Neg. Kline 2 plus.

Course: Slowly progressive downhill course with gradual elevation of icterus. Occasional low grade elevation of temperature. Several blood transfusions given uneventfully. Death ensued on 57th hospital day.

I can't add a great deal from personal recollection of this case other than that which has been included in the protocol. However, I believe that the gastric analysis might be helpful and was as follows: (1 hour after histamine) Total acidity: 20 degrees; free HCl: 12 degrees.

Dr. Kredel (conducting): Mr. Allen will you submit your diagnosis of this case and give us a review of the various points that support it?

Student Allen: There are three possibilities to be considered, carcinoma of the stomach, carcinoma of the head of the pancreas, or chronic pancreatitis. The age of the patient, the rather slow insiduous onset of his terminal illness, the marked loss of weight accompanied by such symptoms as nausea, anorexia together with the presence of an abdominal mass, progressive jaundice, blood in the stool, and progressive constipation in the absence of any laboratory or clinical evidence pointing to an infectious background makes malignancy the strongest possibility.

Dr. Kredel: Since you think this is a malignancy how would you localize the primary site?

Student Allen: The age of the patient, slow onset of such symptoms as anorexia, nausea, sense of a mass in the stomach, and jaundice coupled with the findings of a palpable mass in the epigastrium, blood in the stools, and a progressive jaundice are compatible with carcinoma of the stomach. The presence of free gastric HCl would not necessarily exclude this possibility. The progressive jaundice in such an event would have to be explained on the basis of metastases to the liver.

On the other hand, slow, painless jaundice developing in a male of the cancer age is strongly suggestive of carcinoma of the head of the pancreas. The mounting icteric index, direct Van den Bergh reaction, elevated quantitative bilirubin, and alcholic stools with fat content all support an obstructive type of jaundice. The blood in the stools is not easily reconcilable with the diagnosis of carcinoma of the head of the pancreas unless one supposes that a bleeding point is furnished by infiltration and subsequent ulceration of the papilla of Vater. The lumbar pain and the tenderness over the lumbar vertebrae are not readily explainable except on the supposition that such is reflex or referred in character.

The possibility of chronic pancreatitis is considered only because of its need of discussion in the differential diagnosis of obstructive jaundice. It is impossible at times clinically and even at time of laparotomy to differentiate this condition from that of carcinoma.

Enlargement of lymph nodes producing obstruction of the common duct, such as in Hodgkin's disease, that would not be reflected in the blood smears must be considered. However, this is unlikely in this case since no other regional adenopathy of a suggestive nature was demonstrable.

Common duct obstruction by stones does not appear at all likely in this case.

Dr. Kredel (Conducting): Mr. Merriweather, what is your diagnosis?

Student Merriweather: I, too, believe that this is a case of malignancy, probably carcinoma of the head of the pancreas. The small round mass felt in the right upper abdominal quadrant that moved with respiration could have been, and I believe was, the gall bladder. Courvoisier's law in other words. That is, the obstructive lesion at the lower end of the common duct producing the jaundice and also the distension of an otherwise normal gall bladder. Assuming that this is carcinoma of the head of the pancreas, several ways of explaining the blood in the stools might be propounded:

(1) Since the examination was chemical and performed shortly after admission to the hospital, it is possible that the test was fasely positive on the assumption that the patient might have had meat in his diet prior to admission.

(2) The patient had hemorrhoids.

(3) The carcinoma of the head of the pancreas might have involved the papilla of Vater, as has been suggested.

(4) The carcinoma might have invaded the wall of the stomach or duodenum with subsequent ulceration.

Dr. Kredel: What do you believe is the proper method of testing for blood in a stool specimen?

Student Merriweather: Take the sample for examination from within the fecal mass to exclude blood that might possibly be present from contact of the formed feces with hemorrhoids or other bleeding anal lesions.

I cannot explain the oliguria on any basis other than deficient fluid intake due to the gastro-enteric condition. I do not believe that the patient had any significant kidney involvement. There might possibly have been a unilateral renal condition giving rise to the so-called reno-renal reflex which temporarily diminished urinary output.

Dr. Kredel: How about the pain in the back, Mr. Bolt?

Student Bolt: It might have referred pain from the pancreatic lesion, though metastases to the lumbar vertebrae cannot be positively excluded.

Dr. Kredel: Are there any other examinations that you would have made?

Student Bolt: A G-I series would certainly rule out or establish a stomach lesion. Peritoneoscopy might have been of value, though I am not acquainted with the procedure. An exploratory laparotomy would have been justified in this case if only to establish the diagnosis of carcinoma of the head of the pancreas or to have performed a cholecystojejunostomy. The latter would have been beneficial in the event of pancreatitis and would possibly serve as a palliative measure to relieve the jaundice.

Dr. Kelley: The prolonged clotting time in this case was possibly a by-product of the obstructive jaundice, linked up with Vitamin K deficiency. The low polymorphonuclear count might either be attributed to the liver damage or metastases to the bone marrow. However, the latter is not borne out by X-ray examination. I recall a recent case of Cabot's presenting a similar picture of progressive jaundice which was due merely to gallstones.

Dr. Kredel: May we have the X-ray reports?

Student Sullivan (reading from chart): "First examination Dec. 22, 1939. The esophagus is normal. The stomach fills out well except for the distal portion of the pylorus where there is apparent narrowing of the lumen which is constant and irregular in outline. The duodenal bulb is normal.

Second examination Dec. 26, 1939. Re-examination of the stomach and duodenum reveal the same filling defect of the pyloric portion of the stomach previously visualized. This is persistent and unaffected by peristalic movement. There is some evidence of fixation of the stomach posteriorly in this region."

Dr. Lynch: (Demonstrating liver and pancreas specimen) I believe that the mass felt must have

been the gall bladder. As you can see, the head of the pancreas is not prominently enlarged, although it contains a carcinoma. It is definitely indurated but or about normal size. Even at the necropsy, I do not believe that the pancreatic tumor was readily identifiable from the gross examination. The tumor infiltrates about the papilla of Vater and the common duct, possibly accounting for the presence of blood in the stools. This case, pathologically, illustrates how insignificant a carcinoma in some sites may be, as detectable by physical and X-ray examination.

BOOK REVIEWS

INTRODUCTION TO MEDICINE: By Don C. Sutton, M. D., Associate Professor of Medicine, Northwestern University School of Medicine, Attending Physician, Medical Division of the Cook County Hospital. With introduction by Ada Belle McCleery, R. N. The C. V. Mosby Company, St. Louis, Mo. 1940. Price $3.25.

In the rapid progress of modern medicine the trained nurse plays a significant role. As a matter of fact she should have a fairly comprehensive knowledge of the history of medicine and particularly the history of the movement for better trained nurses. In all of this complex change in the ways and means of caring for the sick and indeed for the prevention of illness and nurse becomes the most important ally of the physician and should have a comprehensive knowledge of the application of the basic principle of modern medicine in the sick room or in the hospital. The authors have produced an excellent book which goes well beyond the mere introduction to medicine for it is a book of 642 pages with many illustrations of diseased conditions. At the end of each chapter there are questions on the preceding information. The book is beautifully printed and the type easily read.

CLINICAL DIABETES MELLITUS AND HYPERINSULINISM: By Russell M. Wilder, M. D., Ph.D., F. A. C. P., Professor and Chief of the Department of Medicine, The Mayo Foundation for Medical Education and Research, University of Minnesota. W. B. Saunders Company, Philadelphia and London. 1940. Cloth, $6.00.

This book comes from one of the great clinics of the world and is fully representative of the unusually fine work done there. The author has had an extraordinary experience not only at the Mayo Clinic but in several other great institutions. The book is so practical that one would be inclined to read it through at a sitting. The whole problem of the surgical management of diabetics has been elucidated in a clear cut manner. Dr. Seale Harris of Alabama has been given due credit for his remarkable contributions on hyperinsulinism. There are a good many excellent illustrations. This is one of the best books published in recent years for the guidance of the physician in active practice.

A TEXTBOOK OF MEDICINE: By Russell L. Cecil, A. B., M. D., Sc.D., Professor of Clinical Medicine, Cornell University Medical College and Foster Kennedy, M. D., F. R. S. E., Professor of Clinical Neurology, Cornell University Medical College. Fifth Edition. Revised and Entirely Reset. W. B. Saunders Company, Philadelphia and London. 1940. Price $9.50.

It is a tremendous undertaking for one hundred and thirty contributors to epitomize so to speak the knowledge of their respective specialties and thus produce a single volume of only seventeen hundred and forty-four pages. It is not too much to say however that Cecil is one of the most popular single volumes on internal medicine in this country. The first volume appeared in 1927 and revisions have followed rapidly until now the fifth edition is off the press and it is encyclopedic in scope.

A TEXTBOOK OF PATHOLOGY: By W. G. MacCallum, Professor of Pathology and Bacteriology, The Johns Hopkins University, Baltimore. Seventh Edition, Thoroughly Revised. W. B. Saunders Company, Philadelphia and London. 1940.

If there is any place where a monograph serves the purpose better than so called systems of medicine with many contributors it is pathology. Here we have a master-piece in the seventh edition now coming from one of the greatest hospitals in the world. Pathology has become a dynamic clinical entity. The pathologist of today is concerned with the etiology of disease as well as of the terminal stages. The illustrations in this book are superb and the important feature about them is that they have come from the vast material of the Johns Hopkins laboratories. The entire book is extremely interesting.

COMPENDIUM OF REGIONAL DIAGNOSIS IN LESIONS OF THE BRAIN AND SPINAL CORD: By Robert Bing, Professor of Neurology, University of Basel, Switzerland. Translated and Edited by Webb Haymaker, Assistant Clinical Professor of Neurology and Lecturer in Neuro-Anatomy, University of California. Eleventh Edition. With 125 illustrations, 27 in color, and 7 plates. C. V. Mosby Company, St. Louis. 1940.

This book was first published some thirty years

ago and now having come to the eleventh revision it would appear that the demand has been very great. Modern surgery with all of its spectacular developements has been greatly enhanced in interest by the highly specialized concentration on the brain and spinal cord diseases. One of the most brilliant of original workers in this field has just passed on, Harvey Cushing.

MANAGEMENT OF THE CARDIAC PATIENT: By William G. Leaman, Jr., M. D., F. A. C. P., Assistant Professor of Medicine in Charge of the Department of Cardiology, Woman's Medical College of Pennsylvania, Philadelphia. Cardiologist, Woman's College, Memorial Northeastern Hospitals and Philadelphia Hospital for Contagious Diseases. 255 original illustrations. J. B. Lippincott Company, Philadelphia, London, and Montreal. 1940. Price $6.50.

The author has expressed a hope that this book will be particularly helpful to the general practitioner who sees most cases of heart disease regardless of how far he may be from the great centers of medical knowledge. He has built much of his information around the well known time honored plan of presenting actual case histories covering the great variety of cases a general practitioner is apt to be called on to treat. The author very sensibly remarks that while the modern instruments of precision such as the electro-cardiograph are invaluable in the study of selected cases they are by no means always necessary in the practice of the average doctor for such a doctor may be a good cardiologist and yet not own an electro-cardiograph. It is conceded however, that if a doctor is fortunate enough to own say an electro-cardiograph and understands thoroughly the use of the instrument he has thus added much to the better understanding of his cases. Reasoning along this line the author has given an excellent history of the electro-cardiograph and a clear cut direction to the doctor on the use of the instrument. All of the older well tried methods are still effective in many instances but much progress is being made all the time. The surgery of heart disease comes in for commendation. The helpfulness of the social service in the management of cardiac cases has been given due credit. The implications of this word Management are therefore far reaching today and will tax the resources of the ablest practitioner but he will be cheered by a book like this as he meets the challenge.

PHYSICAL DIAGNOSIS: By Ralph H. Major, M. D., Professor of Medicine in the University of Kansas. Second Edition, revised with 437 illustrations. W. B. Saunders Company, Philadelphia and London. 1940. Price $5.00.

The first edition of this book appeared in 1937 and it evidently has been well received to merit another edition this early. First of all, the book is well printed and of a size easily handled. Again one is impressed by the excellent illustrations so very important in a work of this kind. The author has a profound respect for the old masters and quotes them freely and yet there are many new methods of approach to physical diagnosis. He does not go into great detail about the X-ray and other special instruments of precision. One of the best chapters in the book is that of history taking and recording.

AS THE TWIG IS BENT: By Leslie B. Hohman, M. D., Associate in Psychiatry, Johns Hopkins Medical School; Assistant Visiting Psychiatrist to the Johns Hopkins Hospital. Reprinted. 286 pages. The MacMillan Company, New York. 1940. Cloth $2.50.

Of the making of books there is no end. And surely there is an abundance these days of books on the psychology of the child. However, nearly all of these works suffer from one of two faults. Some are lengthy, so technical or so detailed that they have little value for the average doctor; others are very simple, non-technical, and very popular but unauthoritative, faddist, and of little worth.

This volume by Dr. Leslie B. Hohman, however, falls into a different category. Its distinguishing points are: the avoidance of exaggeration, the constant insistence on getting at the first causes and the giving of numerous illustrations from his own practice. The reader is constantly impressed with the fact that Dr. Hohman is not an alarmist, that he has had wide experience and that he knows what he is talking about. This volume is intended not so much for the psychological problems of the abnormal child but for the every day training of the normal youngster. This little work should be of great service, not only to doctors but to many mothers.

R. M. Pollitzer, M. D., F. A. A. P.

MINUTES

MINUTES HOUSE OF DELEGATES
CONTINUED

PRESIDENT JENNINGS: We will now have the report of the State Board of Medical Examiners by Dr. A. E. Boozer.

DR. A. EARLE BOOZER (Columbia): Mr. President and members of the Association: Applicants for examination for the year 1939 during the month of June were 45. During November 1939, three. The Board met at Columbia, S. C., in June and November, 1939, to tabulate the grades made by applicants at the June and November examinations with the following results: White passed 47, colored passed 1, total 48. Twelve licenses were granted by reciprocity as follows: Alabama 1, Georgia 3, Kentucky 1, North Carolina 2, Ohio 1, Tennessee 3, Virginia 1.

PRESIDENT JENNINGS: Is there any discussion of the report of the State Board of Medical Examiners?

SECRETARY HINES: Mr. President, as Secretary, I'd like to ask Dr. Boozer this question—it is coming to my office so frequently now by personal visitation, by letters and by various ways—what is the attitude of the State Board of Examiners of South Carolina toward what you might say refugee physicians, or physicians from foreign countries to the number of several thousands now who are coming to our shores and seeking registration in various states?

DR. BOOZER: Mr. President, I believe it was in 1928 or thereabout the Board passed a rule that in order to be eligible for examination an applicant must be a citizen of the United States and in a meeting at Myrtle Beach I believe two years ago, they added another rule that graduates of foreign medical colleges were not eligible for examination. The reason for that rule was that we could not get any grading of these foreign schools. The Board, years ago, as you all know, established a rule to only accept graduates from class "A" medical colschools, so we, in trying to get the grade or standing of these foreign schools, appealed to the American Medical Association. They said they had no way to grade these foreign schools so we were at a loss to know just how to handle the situation in justice to our former rule of a class "A" medical school so they passed this rule two years ago with reference to foreign medical schools. Is that all that you wanted?

DR. HINES: Thank you.

DR. J. McMAHAN DAVIS: May I ask a question? I heard, I believe that we had reciprocity with Texas and Kansas?

DR. BOOZER: Yes.

PRESIDENT JENNINGS: Is there any further discussion of this committee report? If not, is there any objection to the acceptance of the report? Hearing none, the report is accepted.

Is there any business to come before the House of Delegates?

DR. DES PORTES: On behalf of the committee on memorializing deceased members, I'd like to say that we had a short meeting during the recess and it is our opinion that the memorializing of our departed members should not be held during the business session of the House of Delegates but at a more opportune time when we have the largest attendance, possibly on Wednesday just before the guest speaker or a time agreed upon and that we pay more attention to it in several ways and add to it by making the memoriams more impressive and we recommend that this should be done. We unanimously agreed to ask that this report be made preferably Wednesday morning before the guest speaker comes on and that we add to our service but not to take over five or ten minutes.

PRESIDENT JENNINGS: Gentlemen, you have heard the report of the special committee to which this matter was referred. What is your pleasure concerning the report?

DR. McINTOSH: I move that the report be accepted. Motion seconded and vote taken and carried.

PRESIDENT JENNINGS: We will now have the report of the Reference Committee by Dr. McIntosh.

DR. J. H. McINTOSH (Columbia): Your Committee reports that in view of the radical changes these resolutions propose—they ask—that they be referred to the Council for consideration and that the Council be requested to report on them at the next annual meeting of the State Association in 1941.

Adopted unanimously.

J. H. McIntosh, Chairman
F. M. Dibble
A. F. Burnside
J. J. Ravenel

Motion made by Dr. Heyward and duly seconded that the report of the Reference Committee on the recommendations made by the committee on Maternal Welfare be adopted. Vote taken and carried.

PRESIDENT JENNINGS: Is there any miscellaneous business?

SECRETARY HINES: Mr. President, the Secretary begs your indulgence for just a moment. As the President stated to you this morning, our highly efficient stenographer is ill and could not be present at this meeting. Dr. Hines read telegram from Miss Mary Robinson.

SECRETARY HINES: Miss Robinson has reported the meetings of this Association for seventeen years and your Secretary would like to ask the permission of the House to send her a telegram of sympathy expressing our hope that she will soon be on the road to recovery and be back with us again next year. Many of you she has known almost since you wore knee pants. She can call your names and knows you as well as I do or better. We feel that it is a great loss for Miss Robinson to be so ill and not be able to report our meeting.

DR. DIBBLE: I move in addition that we say it with flowers.

DR. DES PORTES: I second the motion. Vote taken and carried.

Dr. Hines read telegrams from President of Missouri State Medical Association and Herbert S. Landorff.

The matter of voting on meeting place of National Association was left entirely with A. M. A. delegates.

PRESIDENT JENNINGS: This brings us to the election of officers. Before the election, I will ask for the Credentials Committee report to determine the voting strength of the House.

DR. W. E. SIMPSON: Mr. President, the registered voting strength of the House is 86.

PRESIDENT JENNINGS: Gentlemen, we will ask the Credentials Committee to act as tellers.

Nominations are now in order for the President Elect of the Association.

DR. L. M. STOKES (Walterboro): Mr. President and Gentlemen of the House of Delegates: It gives me a great deal of pleasure to place in nomination for President Elect of this Association a man who is admired, respected and honored by the citizens and fellow physicians alike. He has had every gift in the power of physicians in his town, county and district and has long been a member of our State Board or State Council. He stands for the best in citizenship and the best in our profession. I feel that under his guidance our Association will not only be safe but we shall make progress. I nominate Dr. George M. Truluck of Orangeburg. (Applause).

DR. E. T. KELLEY (Kingstree): When our President Elect was making his talk this afternoon, he described a physician that I think Dr. Truluck so well fills. I second the nomination.

DR. JAMES FOUCHE (Columbia): It gives me pleasure to second the nomination of Dr. George Truluck.

DR. JENNINGS: Are there any other nominations?

DR. DES PORTES: I move that the nominations close. Motion seconded. Motion made and seconded that the Secretary cast the unanimous vote of the House for Dr. Truluck. Vote taken and carried.

SECRETARY HINES: It gives me a great deal of pleasure to cast the unanimous vote of this House for Dr. George Truluck for President Elect.

PRESIDENT JENNINGS: Is Dr. Truluck in the House?

DR. TRULUCK: Thank you. (Applause).

PRESIDENT JENNINGS: Next is the Vice President.

DR. JACK PARKER. Mr. Chairman, I'd like to nominate Dr. Bob Seibels of Columbia for Vice President.

Nomination seconded. Unanimous vote cast for Dr. Seibels.

PRESIDENT JENNINGS: Nominations are now in order for Secretary-Treasurer.

DR. DES PORTES: There isn't but one man in the place eligible. I'd like to nominate Dr. Edgar A. Hines, not only to succeed himself but for all time. I'd like to handle my own motion. I also move that the nominations close and the Chairman cast the unanimous ballot of the House. (Applause).

PRESIDENT JENNINGS: Gentlmen, it is a little out of the ordinary. Which motion shall I put first.

MEMBER: All of them.

Motion seconded for the nomination of Dr. Hines.

PRESIDENT JENNINGS: All in favor of the motion to close the nominations and declare Dr. Hines unanimously elected, let it be known by saying "Aye."

Dr. Hines is declared elected.

DR. HINES: Mr. President and Members, I thank you for this continued confidence manifested in me and I shall endeavor to do the best that I can for your interests. It is a happy privilege to serve you. Again I thank you.

PRESIDENT JENNINGS: We have to elect a Councilor from the Second District to succeed Dr. T. A. Pitts. Nominations are in order.

Motion made and seconded that Dr. Pitts be nominated to succeed himself. Motion made and seconded that the nominations close and the Secretary cast the unanimous vote of the House for Dr. Pitts. Vote taken and carried in both instances.

PRESIDENT JENNINGS: Nominations are now in order for Councilor from the Fourth District.

Dr. PARKER: I'd like to nominate Dr. Hugh Smith to succeed himself.

DR. LYNCH: I second the motion and move the same procedure.

PRESIDENT JENNINGS: Gentlemen, the same procedure has been moved. Motion seconded, vote taken and carried.

PRESIDENT JENNINGS: Nominations are in order for Councilor from the Sixth District to succeed Dr. Julian Price, Councilor.

DR. DIBBLE: Dr. Julian Price is a very successful Councilor. I move that he be relected. Motion seconded, vote taken and carried.

PRESIDENT JENNINGS: Nominations are in order for a Councilor from the Eight District to succeed Dr. Truluck just elected President Elect.

DR. RAVENEL: Mr. President, I nominate Dr. Lawrence P. Thackston of Orangeburg.

Nomination seconded. Motion made and seconded that the Secretary cast the unanimous ballot for the House for Dr. Thackston. Vote taken and carried. Unanimous vote cast.

PRESIDENT JENNINGS: We have to elect a member of the Board of Medical Examiners from the First Congressional District to succeed Dr. D. L. Maguire, resigned.

Dr. W. A. Black of Beaufort unanimously elected but upon further consideration it was found that Dr. Black did not reside in the First District according to the ruling of the Attorney General and Dr. G. C. Brown of Walterboro was elected in his stead.

The following other members were elected unanimously to the Board of Medical Examiners through the usual procedure. Dr. W. R. Tuten, Fairfax, 2nd Congressional District to succeed Dr. J. S. Matthews, Denmark, deceased. Dr. E. M. Dibble, Marion, 6th Congressional District to succeed himself. Dr. A. Earle Boozer, Columbia, State at Large, to succeed himself.

PRESIDENT JENNINGS: We have to elect a delegate to the American Medical Association. The place is now held by Dr. J. H. Cannon. Nominations are in order.

DR. DES PORTES: A man who serves from year to year is more valuable to us. I'd like to nominate Dr. Cannon to succeed himself. Nomination seconded.

DR. LYNCH: I move that the nominations close and the Secretary cast the unanimous ballot of the House for Dr. Cannon.

Vote taken and carried and unanimous vote cast for Dr. Cannon.

PRESIDENT JENNINGS: Gentlemen, the Association is open for invitations for a meeting place for next year.

MEMBER: Mr. Chairman, it has been some five or six years since this august body paid very deserving respects to Greenville. The Greenville County Medical Society would like to extend an invitation to have the State Association meet with us in 1941. Our hotel facilities are perfect. Our clinical work is adequate. Dr. Jennings, I'd like to make a motion that the State Association meet in Greenville in 1941.

PRESIDENT JENNINGS: Gentlemen, you have heard the gracious invitation from the gentleman from Greenville.

MEMBER: I'd like to second the nomination of that "hill billy" town.

PRESIDENT JENNINGS: Are there other invitations? The motion is that we accept the invitation to go to Greenville in 1941. All in favor, let it be known by saying "Aye." Opposed, "No." The motion is carried.

PRESIDENT JENNINGS: Is there any other business to come before the House of Delegates? If not, the House stands adjourned.

SOCIETY REPORTS

INVITATION TO FOURTH DISTRICT MEDICAL MEETING

Monday, October 21, 1940
Cleveland Hotel, 4 P. M.
SPARTANBURG, S. C.

The members of the Fourth District Medical Society are cordially invited to attend the annual district meeting, on Monday, October 21st, 1940, at 4 P. M., Cleveland Hotel, Spartanburg, S. C. There will be an afternoon session, followed by a Dutch Supper and an evening session.

The scientific program for the afternoon is comparatively short, but the papers are on subjects of much interest. For the evening session, as a special feature of the meeting for this year, Dr. Edgar A. Hines of Seneca, illustrious Secretary-Editor of our State Society, has been invited to make an after-dinner address on the subject of "Medical Preparedness in Operation." As State Chairman for the Medical Preparedness Committee, Dr. Hines is in a position to know what is going on and what the plans are. He will be able, therefore, to give the members of the Society and their guests up-to-the-minute information on the part that our Government is expecting American physicians to play in American Medical Preparedness. We feel that both young and old will be intensely interested in this timely subject. After the address, Dr. Hines will be glad to answer any specific questions with regard to this problem.

The membership of the Fourth District Society are urged to make every effort to be

present for both the scientific program in the afternoon and the after-dinner address. The President and the President-Elect of the South Carolina Medical Association have been invited to be present and to make short after-dinner talks.

Dr. J. W. Bell, President
Dr. George R. Wilkinson,
Secretary,
Fourth District Medical Society

PROGRAM
FOURTH DISTRICT MEDICAL
MEETING
Monday, October 21, 1940
4 P. M. Cleveland Hotel
SPARTANBURG, S. C.

4 P. M. Meeting called to order, Dr. J. W. Bell, Walhalla, S. C., President.

Address of Welcome, Dr. H. W. Koopman, President Spartanburg County Medical Society.

Response: Dr. Hugh Smith, Greenville, S. C., Councilor Fourth District.

SCIENTIFIC PROGRAM

1. "Therapy in Some of the Menstrual Disorders." By Dr. John Fleming, Spartanburg, S. C. Discussion: Dr. Jack Parker, Greenville, S. C.

2. "Use of X-ray in Infections with Special Emphasis on Gas Gangrene." By Dr. Frank Wrenn, Anderson, S. C. Discussion: Dr. Will Judy, Greenville, S. C.

3. "Vitamin K in the New Born." By Dr. George Johnson, Spartanburg, C. C. Discussion: Dr. Francis Owings, Union, S. C.

4. "Surgery in Diabetics." By Dr. George Tyler, Greenville, S. C. Discussion: Dr. Sam Orr Black, Spartanburg, S. C.

5. "Minor Hematological Problems of Major Importance." By Dr. J. M. Feder, Anderson, S. C. Discussion: Dr. P. M. Temples, Spartanburg, S. C.

7:15 Dutch Supper, Cleveland Hotel.

Greetings by Special Guests: Dr. Buck Pressley, Due West, S. C., President S. C. Medical Association. Dr. G. M. Truluck, President-Elect, Orangeburg, S. C.

Address: "Medical Preparedness in Operation." By Dr. Edgar A. Hines, Seneca, S. C., Chairman State Committee on Medical Preparedness.

EDISTO MEDICAL SOCIETY

The Edisto Medical Society met at the Hotel Eutaw, Wednesday, September 25, 1940 at 2:00 P. M. with the President, Dr. H. M. Eargle, presiding. The minutes of the last meeting were read and approved.

Present were: Drs. Truluck, Danner, Boatwright, Hartzog, Symmes, Gressette, Guillard, Brabham, Browning, Harter, Glennon, Goodwin, Eargle, Culler, Mobley, Whetsell, and James T. Green, Columbia, S. C.

Dr. Culler introduced the guest speaker, Dr. James T. Green of Columbia, who read a paper on Compound Fractures and Their Treatment. Dr. Green stressed the importance of proper cleansing of wound when first seen and the early usage of Tetanus and Gas Antitoxin. In addition, he stated that recently he has been using Sulfanilamide placed into the wound made by the compound fractures, with very good results. At the close of his paper he showed a series of lantern slides which showed very clearly his treatment in these cases.

DILLON COUNTY MEDICAL SOCIETY ACTIVITIES

The December, 1939 meeting was held at the Wheeler Hotel, Dillon, S. C., with Dr. Julian Price of Florence delivering a talk on "The Use of Drugs in Children" and Dr. Robert Stith of Florence also giving a talk on "Chemotherapy of Pneumonia."

The March, 1940 meeting was held at the home of Dr. W. V. Branford in Dillon. A delightful dinner was served and the following speakers made talks: Dr. James McLeod on "Hints to Practitioners on Surgical Emergencies," and Dr. L. J. Ravenel on "Vaccines and Endocrines."

The September, 1940 meeting was entertained with dinner at the home of Dr. E. Bryan Michaux of Dillon. Among the guests were Dr. F. H. McLeod and Dr. O. T. Finklea of Florence and Dr. Wade Stackhouse of Dillon who made some remarks to the Society. The speaker of the evening was Dr. W. R. Mead of Florence on "The Nervous Patient."

Dr. W. S. Bethea, President
Dr. A. P. Rosenfeld, Secretary

NEWS ITEMS

Several hundred persons attended ceremonies at the Columbia Hospital Tuesday afternoon, September 24, to honor a beloved physician, Dr. Jane Bruce Guignard of Columbia, whose portrait the work of Clara Barratt-Strait was unveiled in the lobby of the hospital. This portrait of Dr. Guignard was presented to the Columbia Hospital by her patients in grateful recognition of a life of unselfish service to humanity, and is the culmination of a movement which began months ago. Mr. Frank P. McGowan presided over the meeting and his opening remarks were in part as follows, "Due to the her faithful service, skill and courage Dr. Guignard has won the everlasting love and appreciation of her many patients. She has set a standard for all men and women in medicine by her calm efficiency. She has treated not only our bodies but our minds, giving us new hope and strength. She has shared in our happiness and sustained us in our sorrows and we call her our friend." Dr. Alfred Burnside, Chief of the Staff of the Columbia Hospital brought a message of welcome and Mr. McGowan then introduced Dr. Heyward Gibbes who eulogized Dr. Guignard and gave some facts concerning her life. Miss Louly Shand one of Dr. Guignard's first patients presented the portrait to the hospital and Mrs. J. B. Sylvan, Chairman of the Board of Trustees, accepted the portrait on behalf of the hospital, expressing the gratification of the board at the opportunity to possess the portrait.

Friends of Dr. Rudolph Farmer, Resident Physician at the South Carolina Sanatorium at State Park, will be pleased to learn that he has been honored with a Fellowship in the American College of Chest Physicians. The membership of the American College of Chest Physicians is made up of a select group of physicians, who, through years of training and experience, are outstanding in the field of chest diseases.

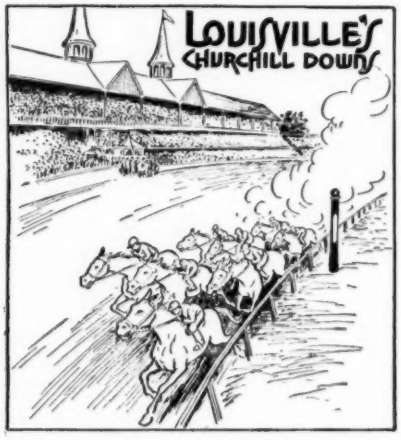
Dr. James Lawrence Thompson, physician at the South Carolina State Hospital for nearly 59 years, died Tuesday morning, September 24 after a period of failing health. He would have completed his 59th year of service at the hospital on October 10. Dr. Thompson was born in Fairfield County March 13, 1854 and spent most of his early life in and around Chester. He graduated from Erskine College and then attended the South Carolina Medical College in Charleston from which he received his M. D. degree. He came to Columbia at the age of 26 years and was connected with the State Hospital which institution he has served since that time. He was a member of the medical staff until 1915 when at his own request, he was relieved from active duty and placed in charge of the medical records at the institution. The institution he served so well twice paid him special honor. On October 10, 1931 the Staff of the hospital gave him a surprise dinner honoring his 50th anniversary as a member of the staff and presented him with a silver loving cup. Two years ago one of the two new psychopathic buildings constructed at the hospital was named for Dr. Thompson. Dr. Thompson is survived by one sister, two daughters, one son, ten grandchildren and two great grandchildren. Funeral services were conducted from the Arsenal Hill Presbyterian Church of which he was a member.

The South Carolina Society of Ophthalmology and Otolaryngology will hold a meeting at the Columbia Hotel, November 5, at 3:00 P. M. The guest speaker will be Dr. Virgil C. Casten a former associate of Dr. A. Bielschowsky. All members of the South Carolina Medical Association are cordially invited to be present.

Dr. and Mrs. P. C. Gaillard have located in Branchville, South Carolina, where the doctor will be engaged in general medicine and surgery. Dr. Gaillard is a native of Eutawville and

graduated from the Medical College of South Carolina at Charleston in 1938. He served his internship at the Roper Hospital and was Resident Physician there. Mrs. Gaillard is a graduate of the School of Nursing of the Medical College of South Carolina in 1938 and will assist her husband with his practice. Citizens of Branchville and surrounding territory are warmly welcoming Dr. and Mrs. Gaillard to their community.

Dr. T. L. W. Bailey of Clinton died Sunday, September 28, after an illness of a year and a half. Dr. Bailey received his medical education at the Chattanooga Medical College and practised his profession for forty-six years. He was a member of the Laurens County Medical Society and the South Carolina Medical Association and served as Councilor for the Third Medical District for a number of years. Dr. Bailey was also active in civic affairs in his community. For twenty years he was a trustee of the Clinton city schools, was Chairman of the Board of Deacons of the First Baptist Church and was a member of the Masonic order. Dr. Bailey is survived by his second wife, his first wife having died a number of years ago, and nine children. Funeral services were held in Clinton.



AS "the Derby" determines the winner among equestrian thoroughbreds, so each meeting of the Southern Medical Association becomes more established as a consistent winner among the thoroughbred medical meetings. See another winner when the Southern Medical Association meets in Louisville, Kentucky, November 12-15, 1940.

MEDICALLY, there may be expected the usual fine programs and entertainment that distinguish the annual meetings of the Southern Medical Association from the others. Ten general clinical sessions, nineteen sections, the three independent medical societies meeting conjointly, and outstanding scientific and technical exhibits are assurance that every phase of medicine and surgery will be available.

REGARDLESS of what any physician may be interested in, regardless of how general or how limited his interest, there will be at Louisville a program to challenge that interest and make it worth-while for him to attend.

ALL members of state and county medical societies in the South are cordially invited to attend. And all members of state and county medical societies in the South can be and should be members of the Southern Medical Association. The annual dues of $4.00 include the Southern Medical Journal, a fine publication recognized as a valuable instrument to physicians of the South in the pursuit of their professional careers.

SOUTHERN MEDICAL ASSOCIATION
Empire Building
BIRMINGHAM, ALABAMA

PROGRAM

SYMPOSIUM ON

DISEASES OF METABOLISM

And

DISEASES OF THE BLOOD FORMING ORGANS

Duke University School of Medicine and Duke Hospital

Durham, North Carolina

Thursday, October 31, 1940

2:00 P. M. Dr. Cyrus C. Sturgis, Ann Arbor, Michigan, Hemorrhagic Diseases.

3:00 P. M. Dr. Louis K. Diamond, Boston, Massachusetts, Practical Aspects of Treatment of Anaemias in Childhood.

4:00 P. M. Dr. Claude E. Forkner, New York, The Leukemias.

8:00 P. M. Dr. Elliott P. Joslin, Boston, Massachusetts, Diabetes and its Treatment.

9:00 P. M. Dr. Thomas B. Cooley, Detroit, Michigan, Hemolytic Anaemias.

Friday, November 1, 1940

9:00 A. M. Dr. Fuller Albright, Boston Massachusetts, The Diagnosis of Hyperparathyroidism.

10:00 A. M. Dr. Eugene F. Du Bois, New York, The Clinical Application and Interpretation of the Basal Metabolic Rate.

11:00 A. M. Dr. Frank H. Lahey, Boston, Massachusetts, The Management of Hyperthyroidism.

2:00 P. M. Dr. Frank H. Lahey, Boston, Massachusetts, A Practical Discussion of Surgical Diseases of the Thyroid Exclusive of Hyperthyroidism.

2:45 P. M. Dr. Allen O. Whipple, New York, Indications for and Results Following Splenectomy.

3:30 P. M. Dr. Leland S. McKittrick, Boston, Massachusetts, Surgical Complications of Diabetes.

4:15 P. M. Dr. George R. Minot, Boston, Massachusetts, Some Aspects of the Etiology, Diagnosis and Treatment of Iron Deficiency Anaemias and Pernicious Anaemia.

7:30 P. M. Buffet Dinner.

Saturday, November 2, 1940

9:00 A. M. Dr. Frank A. Evans, Pittsburgh, Pennsylvania, The Nature of Obesity, Its Prevention and Cure.

10:00 A. M. Dr. Alexis F. Hartmann, St. Louis, Missouri, The Complete Treatment of Diabetic Acidosis.

11:00 A. M. Dr. Russell M. Wilder, Rochester, Minnesota, What is Hyperinsulinism?

2:00 P. M. Homecoming Football Game, Duke vs. Georgia Tech.

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★ Acute Anterior Urethritis (due to Neisseria gonorrheae)

★ Trichomonas Vaginalis Vaginitis

★ Vaginal Moniliasis

★ Bartholinitis and Skeneitis (due to Trichomonas Vaginalis)

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PHILADELPHIA, PA.

SIXTH ANNUAL MEETING PIEDMONT POST GRADUATE CLINICAL ASSEMBLY, ANDERSON, SEPTEMBER 17, 18, 19, AUDITORIUM NURSES' HOME, ANDERSON COUNTY HOSPITAL

Upper left hand corner, Section of Pathology and Pharmacology. Dr. J. M. Feder, Pathologist, Anderson County Hospital, Presiding. To Dr. Feder's left, Dr. Edgar A. Hines of Seneca, President of the Assembly. To Dr. Feder's right, Dr. T. R. W. Wilson of Greenville, Dean of Pathologists of the Piedmont area.

Upper right hand corner, Section on Roentgenology and Gynecology. Dr. Jack Parker of Greenville, Vice President, Presiding. To Dr. Parker's left Dr. Herbert Blake, President Anderson County Medical Society.

In the center, Section on Surgery. Symposium on Fractures. Dr. J. R. Young of Anderson, Chairman of the South Carolina Division of the Southeastern Surgical Congress, Presiding.
To Dr. Young's left, Dr. William A. Boyd of Columbia, Dean of Orthopedic Surgeons in South Carolina.

OFFICERS ELECTED FOR 1941

Dr. J. D. Guess, President, Greenville, S. C.; Dr. J. M. Feder, Vice President, Anderson, S. C.; Dr. J. C. Harper, Vice President, Greenwood, S. C.; Dr. B. C. Teasley, Vice President, Hartwell, Ga.; Dr. R. A. Ross, Vice President, Durham, N. C.; Dr. A. L. Smethers, Secretary-Treasurer, Anderson, S. C. (re-elected); Dr. Herbert Blake, Registrar, Anderson, S. C. (re-elected). Dr. Edgar A. Hines of Seneca, S. C., a Charter Member and First President of the Assembly was elected President Emeritus and by unanimous vote a suitable present authorized for him.

DOCTORS MEET TO TALK PLACE IN CONSCRIPTION

Governor Burnet R. Maybank assured a representative gathering of physicians here yesterday afternoon that the idea behind selective service, proper placement of the individual, was applicable to the profession and he told them he believed members of the profession would be drafted only as officers.

The governor estimated that only 2,000 men would be drafted this year, but he reminded the group that the plan of conscription "looks to the future."

There has been an enormous enlistment in South Carolina this year and some counties will have almost no draftees, but the numbers drafted in the state in the years following will be much greater without the voluntary enlistment, he said.

The ranks of the medical profession will be consequently hit harder after this year and there will be a greater scarcity of doctors for both military and civilian service, he said.

Governor Maybank said no one "has done more for the promotion of the man at the bottom of the ladder than the medical doctor" and he promised that they would be given fair and intelligent consideration and treatment under the preparedness program.

The governor was the principal speaker at a meeting of the preparedness committee of South Carolina Medical Association, held to clear up points of the defense program not familiar and to better organize the resources of the medical profession in the state for its part in the preparedness program.

Dr. Thomas A. Pitts of Columbia, presided at the meeting. He said the American Medical Association was interested in putting the proper doctors in their proper places and had asked officers of state societies to appoint chairmen and committees for preparedness.

He explained that the body had gathered here yesterday had no civil standing, but "stands by to help and advise." He said the governor had legal status and that his presence was valuable also because of his familiarity with and interest in the profession.

Dr. E. H. Greene, A. M. A. representative from Atlanta under the selective service draft, called on doctors serving on the draft boards to serve impartially and intelligently. He explained that a draftee must be examined by the government after the state has made its examination and that if a man whose physical condition has been passed on by the state is rejected by the federal induction board, there will be a needless expense to the government as well as disruption of the draftee's life.

On the other hand, he said, if a doctor finds a man to be able-bodied and then describes him as physically unfit because of requests that he do this by the man's family, the doctor is showing partiality and his actions are detrimental to his government.

He asked that doctors look to the background of conscripts for mental instability, declaring that the cost to the government would be tremendous if even a small percentage of mentally unfit were drafted. He also warned of the dangers of venereal and other contagious diseases.

Dr. W. L. Pressly of Due West, president of the state medical association, said the profession was in for years of sacrifice in all probability and he asked that doctors in the state co-operate and abide in the preparedness committee.

Dr. E. A. Hines of Seneca, state chairman of the preparedness committee, reported on a conference at Chicago between military and medical officials and said the army representatives were sincere in their desire to co-operate with the profession. Indications were that doctors of draft age would not be drafted now, he said.

Doctor Pitts extended the floor to those in the audience wishing to ask questions and a quiz developed with Governor Maybank and Doctor Green supplying information.

—From The State, October 15, 1940.